

THE WAIĀKEA-‘ŌLA‘A FOREST LANDS DESCRIBED IN LAND TENURE DOCUMENTS, SURVEY RECORDS, AND GOVERNMENT COMMUNICATIONS

The most detailed historical descriptions of the Waiākea and ‘Ōla‘a forest lands, and of neighboring Keauhou, including documentation of traditional and customary rights, are those found in the Kingdom collections, documenting the history of land tenure, and defining the boundaries of *ahupua‘a* in the Hilo, Puna, and Ka‘ū Districts. This section of the study presents readers with the laws of the Hawaiian Kingdom, which established fee-simple land ownership and codified native tenant rights. Subsequent to the definition of land rights, the Kingdom set about the processes to determine the metes and bounds of the lands which had been granted in fee-simple interest to various parties. As a result, detailed oral testimonies from elder native tenants were taken in court proceedings, which further documented the occurrence of traditional and customary practices, and nature of the resources within given *ahupua‘a*. In those records, which follow below, we learn of the traditional knowledge and occurrence of native practices in the lands which today are a part of, and adjoin the Pu‘u Maka‘ala NAR.

The Māhele ‘Āina (Land Division) of 1848

In Hawai‘i prior to western contact, all land, ocean and natural resources were held in trust by the high chiefs (*ali‘i ‘ai ahupua‘a* or *ali‘i ‘ai moku*). The use of land, fisheries and other resources was given to the *hoa‘āina* (native tenants) at the prerogative of the *ali‘i* and their representatives or land agents (*konohiki*), who were generally lesser chiefs as well. By 1845, the Hawaiian system of land tenure was being radically altered, and the foundation for implementing the *Māhele ‘Āina* (a fee-simple right of ownership) was set in place by Kauikeaouli (Kamehameha III).

Following implementation of the *Māhele*, the King also initiated a land grant program, issuing fee-simple “Royal Patents” on granted land. In addition to the sale of fee-simple interests in land, the Crown and Government lands were also made available for leases and, in some cases, for sale. Together, these three land programs opened the door for the development of the large ranching interests in the lowlands below ‘Ōla‘a and Waiākea, and on the Keauhou-Kapāpala forest lands. Because of the remote nature of the lands and dense forests of the ‘Ōla‘a-Waiākea lands that make up the Pu‘u Maka‘ala NAR, no leases or conveyances were recorded for those lands. This said, it is likely that Hawaiian visitation collection of resources associated with traditional and customary practices continued in the Pu‘u Maka‘ala NAR lands for some time through the middle to late 1800s.

On December 10th, 1845, King Kamehameha III (Kauikeaouli), signed into law “Article IV. —of The Board Of Commissioners to Quiet Land Titles,” a joint resolution defining the responsibilities of the Board of Commissioners. Several actions were implemented by this law, among them:

SECTION I. His Majesty shall appoint through the minister of the interior, and upon consultation with the privy council, five commissioners, one of whom shall be the attorney general of this kingdom, to be a board for the investigation and final ascertainment or rejection of all claims of private individuals, whether natives or foreigners, to any landed property acquired anterior to the passage of this act; the awards of which board, unless appealed from as hereinafter allowed, shall be binding upon the minister of the interior and upon the applicant...

SECTION VII. The decisions of said board shall be in accordance with the principles established by the civil code of this kingdom in regard to prescription, occupancy, fixtures, native usages in regard to landed tenures, water privileges and rights of piscary, the rights of women, the rights of absentees, tenancy and subtenancy, — primogeniture and rights of adoption; which decisions being of a majority in number of said board, shall be only subject to appeal to the supreme court, and when such appeal shall not have been taken, they shall be final...

Section IX. The minister of the interior shall issue patents or leases to the claimants of lands pursuant to the terms in which the said board shall have confirmed their respective claims, upon being paid the fees of patenting or of leasing (as the case may be)... [In the Polynesian; January 3, 1846:140]

As the *Māhele* evolved, it defined the land interests of Kauikeaouli (King Kamehameha III), some 252 high-ranking *Ali'i* and *Konohiki*, and the Government. As a result of the *Māhele*, all land in the Kingdom of Hawai'i came to be placed in one of three categories: (1) Crown Lands (for the occupant of the throne); (2) Government Lands; and (3) *Konohiki* Lands. The "Enabling" or "*Kuleana* Act" of the *Māhele* (December 21, 1849) further defined the frame work by which *hoa'āina* (native tenants) could apply for, and be granted fee-simple interest in "*Kuleana*" lands (cf. Kamakau in *Ke Au Okoa* July 8 & 15, 1869; 1961:403-403). The *Kuleana* Act also reconfirmed the rights of *hoa'āina* to access on trails, subsistence and collection of resources necessary to their life upon the land in their given *ahupua'a*. The *Kuleana* Act, remains the foundation of law pertaining to native tenant rights. The Act was passed on August 6, 1850, and reads:

An Act confirming certain resolutions of the King and Privy Council passed on the 21st day of December 1849, granting to the common people allodial titles for their own lands and house lots, and certain other privileges... That the following sections which were passed by the King in Privy Council on the 21st day of December A.D. 1849 when the Legislature was not in session, be, and are hereby confirmed, and that certain other provisions be inserted, as follows:

Section 1. Resolved. That fee simple titles, free of commutation, be and are hereby granted to all native tenants, who occupy and improve any portion of any Government land, for the land they so occupy and improve, and whose claims to said lands shall be recognized as genuine by the Land Commission; Provided, however, that the Resolution shall not extend to Konohikis or other persons having the care of Government lands or to the house lots and other lands, in which the Government have an interest, in the Districts of Honolulu, Lahaina and Hilo.

Section 2. By and with the consent of the King and Chiefs in Privy Council assembled, it is hereby resolved, that fee simple titles free of commutation, be and are hereby granted to all native tenants who occupy and improve any lands other than those mentioned in the preceding Resolution, held by the King or any chief or Konohiki for the land they so occupy and improve. Provided however, this Resolution shall not extend to house lots or other lands situated in the Districts of Honolulu, Lahaina and Hilo.

Section 3. Resolved that the Board of Commissioners to quiet Land titles be, and is hereby empowered to award fee simple titles in accordance with the foregoing Resolutions; to define and separate the portions belonging to different individuals; and to provide for an equitable exchange of such different portions where it can be done, so that each man's land may be by itself.

Section 4. Resolved that a certain portion of the Government lands in each Island shall be set apart, and placed in the hands of special agents to be disposed of in lots of from one to fifty acres in fee simple to such natives as may not be otherwise furnished with sufficient lands at a minimum price of fifty cents per acre.

Section 5. In granting to the People, their House lots in fee simple, such as are separate and distinct from their cultivated lands, the amount of land in each of said House lots shall not exceed one quarter of an acre.

Section 6. In granting to the people their cultivated grounds, or *Kalo* lands, they shall only be entitled to what they have really cultivated, and which lie in the form of cultivated lands; and not such as the people may have cultivated in different spots, with the seeming intention of enlarging their lots; nor shall they be entitled to the waste lands.

Section 7. When the Landlords have taken allodial titles to their lands the people on each of their lands shall not be deprived of the right to take firewood, *aho* cord, thatch, or ti leaf from the land on which they live, for their own private use, should they need them, but they shall not have a right to take such articles to sell for profit. They shall also inform the Landlord or his agent, and proceed with his consent. The people shall also have a right to drinking water, and running water, and the right of way. The springs of water, and running water, and roads shall be free to all should they need them, on all lands granted in fee simple. Provided, that this shall not be applicable to wells and water courses which individuals have made for their own use. Done and passed at the Council House, Honolulu this 6th day of August 1850. [copied from original hand written “Enabling Act”⁶ – HSA, DLNR 2-4]

The most important source of documentation that describes native Hawaiian residency and land use practices — identifying specific residents, types of land use, crops cultivated, and features on the landscape — is found in the records of the *Māhele ‘Āina*. While the “Land Division” gave the *hoa‘āina* an opportunity to acquire fee-simple property interest (*kuleana*) on land which they lived and actively cultivated, the process required them to provide personal testimonies regarding their residency and land use practices. As a result, records of the *Māhele ‘Āina* present readers with first-hand accounts from native tenants generally spanning the period from ca. 1819 to 1855. The lands awarded to the *hoa‘āina* became known as “*Kuleana* Lands” and all the claims and awards (the Land Commission Awards or L.C.A.) were given *Helu* (numbers). The L.C.A. numbers remain in use today, and identify the original owners of lands in Hawai‘i.

The work of the Land Commission was brought to a close on March 31, 1855. The program met with mixed results, and it has been calculated that the total amount of land awarded to *hoa‘āina* (native tenants – the common people of Hawai‘i) equaled approximately 28,658 acres, of a total four million available acres (see Governor’s report 1902:7).

Disposition of Primary Lands Making up and Adjoining The Pu‘u Maka‘ala Natural Area Reserve in the Māhele

The lands which make up the Pu‘u Maka‘ala NAR include *ahupua‘a* belonging to the Hilo and Puna Districts, and are also bounded by lands in the Ka‘ū District. In the *Māhele*, the following division of lands was agreed to by the King and participating *ali‘i* (all page references are to the “*Buke Mahele*” 1848):

<i>Keauhou, Ka‘ū</i>	<i>Keauhou, Ili i Kau, Kapapala</i> ; retained by V. Kamamalu (pp.5-6).
<i>‘Ōla‘a, Puna</i>	Olaa (Kalana); relinquished by Kaunuohua to King Kamehameha III (pp. 91-92). Retained as Crown Land by the King.
<i>Waiākea, Hilo</i>	Relinquished by Kaunuohua to King Kamehameha III (pp. 91-92). Retained as Crown Land by the King.

⁶ See also “*Kanawai Hoopai Karaima no ko Hawaii Pae Aina*” (Penal Code) 1850.

Within these lands, *hoa'āina* also made claims for small *kuleana*. Our review of all records of the *Māhele* revealed that the following number of claims were made in these lands⁷:

<i>Ahupuaa</i>	<i>Claims</i>	<i>Awarded</i>	<i>Not Awarded</i>
<i>Keauhou, Ka'ū</i>	0	0	0
<i>‘Ōla'a, Puna</i>	1	0	1
<i>Waiākea, Hilo</i>	36	24	12

None of the claims by *hoa'āina* identified uses or parcels within the lands that are now a part of the Pu'u Maka'ala NAR, though it is understood (based on traditional and customary practices, and the laws cited above) that native tenants of the lands would have accessed the forest lands in order to collect resources or participate in other traditional practices.

An indicator of the cultural significance of the forest lands adjoining, if not also within the present day 'Ōla'a-Waiākea Forest Reserves and Pu'u Maka'ala Natural Area Reserve is found in the following letter of 1857, in which the important *koa* forests of the Kapāpala-Keauhou vicinity in Ka'ū are mentioned:

Waimea, Hawaii

26, March, 1857

Isaac Y. Davis; to Keoni Ana, Minister of the Interior

(Regarding status of the King's Lands at Apua, Kapapala and other locations):

...I have made a circuit of the Island of Hawaii, and I have returned.

I have seen all the places that I visited, and saw the lands of the King in Puna, Kau & Kona, some are good, and some are not good...

Kapapala, Ahupuaa in Kau, is a large land, but one side is stone, but, the side joining the mountain is good, plenty of earth, the land is rich and green as I observed. The canoe *koa* forest in Kau belongs to Kapapala, there is also a pond, but I did not visit it, and this land is similar to Waimea.

I called the people to come, and I told them my desire to lease said land hoping that I would be able to get between \$300.00 and \$500.00, and if five hundred, all the better, but the natives said only \$50.00 to \$60.00, and then up to a hundred, and not more, so I did not consent... [HSA Interior Department Lands]

The forest lands of 'Ōla'a are noted for their growth of *hāpu'u* (*Cibotium*) tree ferns. The collection of *pulu* was one of the activities undertaken in the 'Ōla'a section, as mentioned in the following letter from 1866. At the time, the applicant, T. Spencer, also applied for the right to run a few head of animals in the forest lands:

Honolulu, Oahu

23, April, 1866

Thomas Spencer. to J.O. Dominis:

...I would respectfully ask of you as a favor, to grant, or procure for me, a *Pulu* privilege on the land called ***Olaa***— I do not ask you for "The privilege," but a *Pulu* privilege, and to run what few animals I have connected with the business. I cannot afford to pay but a small sum, as the business will not warrant it—I am barely making both ends meet, I assure you, out of it. I called this morning on Mr. Rufus Lyman for information, in regard

⁷ The on-going research of Kumu Pono Associates LLC in the nearly 60,000 records of the *Māhele 'Āina*, may lead to modifications in these numbers at a later date.

to this business who referred me to you, and has kindly promised me to write you for instructions. Be so good as to grant me this favor... [HSA Interior Department Lands]

Later in 1866, we find that native applicants were seeking “*pulu* privileges” in ‘Ōla’a as well, and that they had knowledge of the native birds and other resources in the uplands:

Hilo, Sept. 18th, 1866

R.A. Lyman; to J.O. Dominis:

...Kaaikai & Kaaia are the ones who wish to lease **Olaa** for five years from the first of next January. Provided that they are allowed to have the *pulu*, and only the *pulu*. Birds, & *awa*, to be reserved. They would like to have two or three weeks more to consider about it, and wish to know whether you will allow them to pay on the 1st of July of each year, or whether they will have to pay the first of every year. Please let me know about this, and I will let you know as soon as I can if they will take it... [HSA Interior Department Lands]

***Proceedings of the Boundary Commission:
Documenting Traditional and Customary Practices,
and Land Boundaries (1873-1875)***

In 1862, a Commission of Boundaries (the Boundary Commission) was established in the Kingdom of Hawai‘i to legally set the boundaries of *ahupua‘a* that had been awarded to *Ali‘i*, *Konohiki*, and foreigners during the *Māhele*. In 1874, the Commissioners of Boundaries were authorized to certify the boundaries for lands brought before them (W.D. Alexander in Thrum 1891:117-118). The primary informants for the boundary descriptions were old native residents of the areas being discussed (generally born between the 1780s to 1820s). The native witnesses usually spoke in Hawaiian, and their testimony was translated into English and transcribed as the proceedings occurred.

Readers will note that there are significant inconsistencies in spelling of various words, including place names, people names, and features on the landscape. This is problematic, but with the help of maps produced as a part of the surveys to establish boundaries, and other period maps (e.g. Register Map No.’s 42 & 524; and Land Court Application Map No. 1053), many of the locations described can be identified. We have also observed that in some testimonies, when the original translator-transcriber used two of the same vowels, it indicated that he/she heard a lengthened pronunciation of a particular vowel. This emphasis of pronunciation is now indicated by a macron mark—for example, the word “*neenee*” (for *nēnē*), the native goose formerly hunted on the mountain lands above the Pu‘u Maka‘ala NAR. While in the modern context of the language, two of the same vowels are generally both pronounced, and broken by an ‘*okina* or glottal mark.

The narratives cited below, are verbatim transcripts from the testimonies given by native residents or land owners, and those given by surveyors who recorded the boundaries based on the testimony of native guides. The testimonies include descriptions of the lands of ‘Ōla’a and Kea‘au (Puna); Waiākea (Hilo) by association with the adjoining lands of ‘Ōla’a, Kukuau, Kaūmana and Humu‘ula; and Keauhou (Ka‘ū).

While the excerpts from the testimonies, extend beyond the specific limits of the Pu‘u Maka‘ala NAR, they are important as they demonstrate thorough knowledge of the landscape, and demonstrate continuity in the types of traditional and customary practices described at various elevational zones. Thus, while something may not have been recorded for ‘Ōla’a or Waiākea, the description of practices in a neighboring land, suggests that such knowledge existed within lands that make up the study area. The witnesses generally described the boundaries as they rose from the ocean or lowlands, running through the forest lands, to a point where they reached the slopes of Mauna Loa. ‘Ōla’a and Waiākea are both cut off by larger lands of the Hilo and Ka‘ū Districts. The primary upland boundary points given are Pōhakuloa, Kūlani, Kīpū, and Māwae.

Also, while situated in the *ahupua'a* of Waiākea and 'Ōla'a, access to the forest resources of what is now the Pu'u Maka'ala NAR and adjoining areas, would have sometimes been gained from neighboring lands such as Kea'au, Kukuau, Humu'ula, Keauhou and Kapāpala. The selected native testimonies describe a wide range of traditional practices in the uplands of Waiākea, 'Ōla'a, and in adjoining lands. The types of usage includes: travel on native trails, land use in a wide range of elevational zones; collection of resources; the collection of, or "hunting" of birds; canoe making; and the subsequent practices associated with hunting introduced ungulates—all under the control of *Konohiki*⁸. The testimonies also record that changes had occurred on the landscape during the life-time of the witnesses. It is of importance to note that the boundaries were known by the native tenants, and the rights to take or hunt resources in traditional times were fiercely protected—individuals without chiefly, genealogical claims, or residency ties to given lands were not allowed to trespass and take resources from the *ahupua'a*.

Underlining, square bracketing, bold and italic print are used by the compilers here, to highlight place names and particular points of historical interest recorded in the testimonies. The proceedings for the cited lands are given in alphabetical order, and date of recordation.

In the days leading up to the recordation of testimonies regarding the boundaries of Waiākea and Humu'ula, Hilo; and Keauhou, Ka'ū, we find that a difference of opinion had arisen among the witnesses. The commission proceedings standardized the boundaries of these lands, sometimes without following the former traditional boundaries:

Hilo May 1st 1873

R.A. Lyman; to J.O. Dominis, Agt. of Crown Lands

(Regarding hearings for Crown Lands before Boundary Commission):

I have set the 2d of next June for the hearing of testimony for the settlement of the boundaries of Punahoa, Makahanaloa & Pepekeo in Hilo, Keaau & Keahialaka in Puna, Honuapo & Pakaniiki in Kau. I will have the hearing at Hilo. The Crown Com. are interested in the lands of Pi'ihonua & ***Humuula*** joining Makahanaloa & Pepekeo, Ponahawai joining Punahoa 1st; ***Waiakea*** & ***Olaa*** joining Keaau in Puna.

Please to authorize some one to appear at the hearing and look after your interests...
[HSA – ID Lands]

Hilo, June 9, 1873

R.A. Lyman, to J.O. Dominis, Agent of Crown Lands

(Regarding Boundaries of Humu'ula and Neighboring, and Disposition of Pi'ihonua):

...Enclosed, please find a list of lands as near as I can make it out at present. I have written to Mr. Wiltse and Hoapili asking them to send you correct lists of lands in their districts and to forward me copies as soon as possible. Please to send me surveys of as many of the lands as you can. If the surveys made by my brothers have been lost, I think that any brother could make out new copies of most of them. The survey of ***Humuula*** made by Wiltse cuts way into Waiakea as surveyed by Webster and cuts off several miles of Kapapala and Keauhou.

Kahue, Wiltse's *Kamaaina* swears that they did not go to a single point on the boundary of Humuula along in the woods and did not put any flags there but that he pointed out some above the woods where he guessed the points were and they sighted to them.

⁸ In regards to hunting, it will be noted that descriptions of traditional hunting practices are limited to native species of birds, including the *ua'u*, *nēnē*, *mamo* and *ō'ō*; while description of historical hunting practices are limited to goats, which were hunted under contract of *Konohiki*, the Crown, or the Government.

The Piihonua people are very much put out about the survey of **Humuula** as they supposed they had leased Piihonua by the ancient boundaries and the survey of Humuula cuts off a strip several miles wide clear across the head of the land and leaves no wild cattle to speak of for Piihonua. They say they cannot afford to pay \$100 a year for the woods of Piihonua now. [HSA, Crown Lands File]

The Ahupuaa of Humuula

District of Hilo, Island of Hawaii

Boundary Commission, Hawaii, Volume A No. 1:238-240

Honolulu, July 7, 1873

R.A. Lyman, Esq.
Hilo

Dear Sir
Mr. F.H. Harris is authorized by the Commissioners of Crown lands to make application to you as Commissioner of Boundaries to have the boundaries of all Crown lands on the Island of Hawaii defined. He has a list of the lands with him.

I have also authorized Mr. F.H. Harris to make application to you for the settlement of boundaries of all lands belonging to Est. of His late Majesty and Her Excellency, R. Keelikolani.

I expect to be in Kona by the trip of the "*Kilauea*" which leaves here on the 28th inst. Can't you make it convenient to come round as the steamer goes to Hilo on that trip.

I wish also to apply for the settlement of the boundaries of Honohina.

I remain,
Yours Respy.
Jno. O. Dominis

Honorable R.A. Lyman
Boundary Commissioner
for Island of Hawaii, Haw. Is.

The undersigned would herewith make application for the settlement of the boundaries of the following named Ahupuaas or Lands belonging to the Crown, viz.:

Waiakea in the District of Hilo bounded by ***Keaau, Olaa, Kapapala, Humuula, Piihonua.***
Piihonua in the District of ***Hilo***, bounded by Punahoa, ***Waiakea, Humuula*** and Puueo, Paukaa & Alae and other lands

names not known... [page 238]
Humuula in the District of Hilo bounded by
Kapapala, various lands in Kona and Kohala
and Hamakua, and Hakalau, Makahanaloa,
Papaikou, Paukaa, Piihonua and Waiakea
in the District of Hilo... [page 239]
...**Olaa** in the District of Puna, bounded by
Keaau, Wm. C. Lunalilo, H. M. **Waiakea**
& **Kapapala**...

Your Honor will therefore please appoint
a day for hearing the evidence
in the foregoing named lands and having
decided upon the same to grant a certificate
to that effect to the undersigned.

Hilo Hawaii, August 16th A.D. 1873

(Signed) Jno. O. Dominis
Crown Land Agent.
by F.H. Harris
atty. at law. [page 240]

Ahupuaa of Humuula
Boundary Commission, Hawaii Volume B:28-59

The *Ahupuaa* of **Humuula**, District of **Hilo**,
Island of Hawaii, 3d J.C.

On this, the 3d day of November A.D. 1873 by adjourn-
ment from the 30th October, the Commission of
Boundaries for the Island of Hawaii, 3d J.C.
met at the Court House in **Hilo**, on the appli-
cation of J.O. Dominis, Agent of Crown Lands
for the settlement of the boundaries of **Humuula**,
situated in the District of **Hilo**, Island of Haw-
aai. Notice personally served on owners or Agents
of adjoining lands, as far as known. Also served
by publication in the Hawaiian Gazette of
_____ and *Kuokoa* of _____.

Present, E.G. Hitchcock for applicant, for
Mrs. L.K. Dominis, Her Ex. R. Keelikolani, the
Estate of Kamehameha V, C.R. Bishop and self,
D. Kamai for Hawaiian Government Lands
in **Hilo**, and D. Alapai.

For Petition see Folio 238, Book A.

Testimony.

J.A. Simmons ^K, Sworn:
I have lived on Hawaii for forty two years
and in Hilo, District about half of that time. I
shot wild cattle on Humuula for eight years.

This was soon after I came into the Country, but I have been there since. I used to live with Ned Gurney at Lahohino [Lahohinu], a place above the woods on Humuula...

Makaulaula^{K.} and Opukeike^{K.}, old bird catchers of Piihonua, also pointed out the boundaries to me, when I lived at Pahukea, saw mills on Piihonua... [page 28]

...A great deal of the forest has been killed out by the cattle barking the trees and destroying the underbrush. Therefore the woods do not extend so far mauka as they did twenty years ago.

Know the place called Puuoo, a big hill on the plains of Humuula is now called by that name, but the original Puuoo is a hill covered with *ohia*, and was told it was on the land of **Waiakea**. It is *makai* of the hill on **Humuula**, and I am certain it is not on that land...

Nainoa^{K.} Sworn.
I am a kamaaina of Hamakua, at the time of Aipala [famine of ca. 1811], know a part of the boundaries of **Humuula**, as they were pointed out to me by people who are now dead.
Li. Kauwila (his father) and Pali, who were kamaainas of **Humuula** showed me the boundaries, and told me not to go to certain places... [page 30]

...I went with the *kamaaina*.
They told me that **Humuula** was bounded by **Kapapala** of Kau, **Keauhou** of Kona, and **Kaohe** of Hamakua. I have never heard that **Kaalaala** of Kau or **Waiakea** of **Hilo** joined **Humuula**. The old trail from **Humuula** towards **Piihonua** used to run along the *mauka* edge of the woods, near the boundary, not in the woods.

The **Humuula** and **Piihonua** people used to go after water at Kelewa [Kaelewa]... [page 31]

...When I went after birds on **Humuula** Li told me not to catch the birds in *koa* and *mamani*, as they belong to the *makai* lands, and would be taken away by the people of those lands if I caught them... [page 32]

Kahue^K. Sworn:

I was born at **Humuula**, am seventy three years of age, and a *kamaaina* of the land and know its boundaries. Kalaimaka, Mohaiku, Eekamoku (all dead) were *kamaaina* of **Humuula** and pointed out the boundaries to me... [page 33]

...**Kahiliku**, a *lae laau* [a section of forest that extends out from the surrounding forest on to an open area], outside of the woods. Thence to **Mawae**, a crack in the woods that runs from *makai*. I have heard that **Waiakea** joins **Humuula** here, but I do not know which side of the lava flow of 1854 or 1855, the lands join. Thence the boundary of **Humuula** runs to **Kawauwauwai** a *kauhale*; the boundary running to this point in scattering bush. The forest ends at **Elekalua**...[page 34]

...**Kapapala** is said to cut **Humuula** off to **Pohakuhanaiei**. Boundary runs near **Puuonioni** on **Humuula**; the boundary is a little beyond. **Wekahuna** [Uwēkahuna] is a hill on **Humuula**. **Waiakea** ends at **Pohakuloa**, and from there **Humuula** is bounded by **Kapapala** to **Pohakuhanaiei** (I do not know whether **Kapapala** extends to **Pohakuhanaiei**). From **Pohakuhanaiei** to Koaohe it is bounded by **Kaalaala** of Kau... [page 35]

Witness rested until 10 o'clock tomorrow morning
Nov. 4th 1873.
R.A. Lyman
Com. Boundaries 3d J.C.

Hilo Nov. 4th 1873. Court opened according to adjournment...

[Witness Kahue, continued]:
I went with Wiltse one time when he surveyed the land of **Humuula** [Register Map 668]... [page 36]

I do not know the places called Punaluu (on **Mauna Loa**), **Kaamaumauloa**, **Puuulaula** and **Puukulua**, **Puuonioni** and **Wekahuna**. I have not seen, but have heard that they are on the boundaries. **Humuula** does not reach to **Kulani**. **Puuiki** is by the boundary of **Humuula** and **Waiakea**... [page 37]

Waiki^K. Sworn:

I live at **Humuula**, was born there after the battle of Kekuakalani [1819], and know the boundaries of the land. My parents told them to me. Eekamoku was my father and Koapunini my grandfather, they were bird catchers

and canoe makers. Kalaimaka, father of my wife pointed out the boundaries and told them to me... [page 38]

...**Kahiliku kauhale manu** [a bird catcher's house at Kahiliku]; thence to **Kaelewa**, where there is now water. Thence to **Kawauwai** by the edge of the forest. Thence to **Kaieie**; Waiakea and Piihonua join Humu-ula between these two places. Thence along the edge of the forest to **Kalapaohelo**. I have been there with my parents, an old lava ground. Thence to **Pohakuloa**, a large rock where Kaehu Paki laid down on the side of the mountain towards Kau of Kalapaohelo. There I [page 40] staid with my *kupuna* and they said the boundary runs from here up the mountain to **Pohakuhanaiei**, a rock on the slope of the mountain towards **Kaleieha**. **Waiakea** bounded it to **Pohakuloa**, but they did not tell me what lands bounded **Humuula** from there to **Pohakuhanaiei**... [page 41]

Kaaua^K. Sworn.

I was born at **Waiakea Hilo**, at the time of *Akakai Mokuokai* [*Hakaka i Mokuohai*, the Battle of Mokuohai in 1782]. I have always lived there, and know where **Waiakea** joins **Humuula**. I was told by **Olaa kamaaina**, Opuloo and others (whose names I have forgotten) at the time Webster surveyed **Waiakea**. I have always heard that **Waiakea** joins **Humuula** from **Puuhuluhulu** to **Mawai** [Mawae]. Webster set flags on **Puuhuluhulu** when he surveyed **Waiakea**... [page 55]

The Ahupuaa of Kaumana
District of Hilo, Island of Hawaii, 3^d J.C.
Boundary Commission, Hawaii Volume B:1-2

On this 29th day September A.D. 1873...

Kekai^K. Sworn:

Kaiahua, a bird catcher (now dead) showed me the boundaries of Kaumana, **Waiakea** and Piihonua, in the woods. **Kapulu** is at the *mauka* corner of **Kukuau**, and at the junction of **Waiakea** and **Kaumana**. Thence the boundary between **Waiakea** and **Kaumana** runs *mauka* to **Kalapa-lapanui**, an *oioina* [trailside resting place] and place where we used to catch birds; a high ridge on the Hilo side of the lava flow of 1852. There used to be an old road for bird catchers to **Hooa**, a place on **Waiakea**, where we

used to catch *mamo*. **Kaaumana** is on the Hilo side of this ridge; thence *mauka* to **Kapualei**, now covered by the lava flow of 1855. Thence to **Kalaeokoieie**, *lae koa* [a section of *koa* forest extending onto a lava flow] mostly destroyed by the lava flow. **Kaaumana** ends at the *mawae* [fracture], *makai* of this place, and *mauka* of the tall woods, at the junction of **Piihonua** and **Waiakea**. Thence the boundary of **Kaaumana** runs *makai* [page 1] along **Piihonua** to **Kapili**, an old *kauhale* [house site], now covered by the lava flow; thence *makai* to **Kilohana**, now covered by lava; thence to **Kawauwauwai**; thence *makai* to **Nahaleoelele**, the *mauka* corner of **Ponohawai**.

C.X.'d... [page 2]

The Ahupuaa of Keaau

District of Puna, Island of Hawaii, 3^d J.C.
Boundary Commission Testimony – Volume A. No. 1:191-198
June 4, 1873

Uma^K. Sworn: I was born at Keauhou at Keaau Puna, at the time of the return of Kamehameha 1st from Kaunakakai, Molokai [ca. 1791], I have always lived there and know the boundaries between Keaau and Waikahekahe. My parents pointed them out to me when we went after birds and sandal wood... [page 191]

...Alaakeiki, which is the end of Waikahekahe Iki and Kahaualea joins Keaau. This place is at an old *kauhale manu* [bird catchers compound] (opposite a rise of ground, above the seventeen mile post, on the Volcano Road, about two miles above Kanekoa), thence *mauka* to Palauhulu, an *ahua* [rise] on the road to Kilauea, at the place where the road to Panau branches off. The boundary between Keaau and Kahaualea is on the South east side of Palauhulu about as far away from Hilo Court House to seashore. Thence the boundary runs *mauka* to Omaolaulau (*he oioina* [a resting place] on *pahoehoe*) near the woods at Reeds bullock pen... thence *mauka* to Keekee, *Kauhale kahi olona* [house for stripping *olonā* bark for cordage] in Olaa. The boundary is a short distance from the Government road on the South East side. Thence to Kauwaanahunalii (*he oioina*) this place is on Keaau and the boundary runs to the South East side of it. This is at the high ground where you can look down in the woods where the bullock pen is, thence to Kawaiaee

a large water pond (South East side of the road). The boundary of Keaau and Kahaualea is close to the pond, on the south east side, thence *mauka* to Kalaninauli, the land on the south east side being only about six chains wide thence to Puenaena (large *ohia* trees on the road *makai* of the *koa* woods) a short distance South East of the Government road. Thence the boundary runs *mauka* to a place called **Pohakuloa**, a small cave south east of the Government road, and a very short distance above the *koa* woods, on the Government road to Kilauea. Thence Keaau is cut off by **Keauhou**. **Olaa** bounds Keaau on the north west side. Keauhou cuts Keaau off to Government road to Kilauea, then runs *makai* along the old [page 192] Government road, through the *koa* woods. **Olaa** being on the North side of the road and Keaau on the South east side. Thence down the road passing these points **Palauhulu** and to **Kapueuhi**, thence *makai* to Kahooku thence to Kanekoa, the houses on the South East side of the road are on Keaau, those on the other side are on **Olaa**, thence to Kamahiki (14 mile post). Thence to Kalehinapua (where there is a *mauka* road which goes to Hawelu's) thence to Kaahakanaka, on the outer road passed Hawelu's thence to Kaluakaiole (Kaakeakaiole) *mauka* of where Haanio road to Kukulu leaves the present traveled road, thence to Mahinaakaaka on the outer road, out side of Kahuku, thence down to where Kahopuaku's houses used to be (Makaulele) along the old road, this is as far as I know the boundaries between **Olaa** and Keaau. Kahopuaku's houses were on **Olaa**... [page 193]

Kanoi^K Sworn: I was born at Kapapala in Kau, at the time of the building of Kiholo [ca. 1811] lived there until a few years since; know the land of Keaau and the boundaries on the mountain adjoining Kahaualea. The upper end of Keaau is bounded on the South East-side by Kahaualea, and on the *mauka* side by **Keauhou** and on the Northwest side by **Olaa**; Kaheana, Kaihe Kaheana², and Makanui my *Kupuna* showed me some of the boundaries of these lands. Kaheana was from Panau, Puna, and Kaihe was from Kau. These two men, with others from Kapapala showed me boundaries between Keauhou and Kahaualea where we went after the oo on **Keauhou**. Went after sandalwood on Kahaualea. **Keauhou** cuts Keaau off at

Pohakuloa, the *huina alanui* [road intersection], where the marks or sign board is at the junctions of the Hilo and Puna [196] roads this side of the Kilauea House, the name of this place is Halemaumau. The boundary of Keaau runs *makai* along the Puna road to Kaluaiki, a small crater, at a place where the road runs between two craters. Onto the *mauka* side of crater Kaluaiki, said crater is on Kahaualea and Keauhou is on the South side of the road. Keaau and Kahaualea lay side and side, from Kaluaiki to Nawailoloa, a place on the road from Palauhulu to Panau. Kaluaiki is about as far Pohakuloa as from Hilo Court House to Kaina's house at Alenaio. Nawailoloa and Kilohana, two ponds of water, on the road to Panau from Palauhulu, from Nawailoloa the boundary between these two lands runs *mauka* to a grove of *Ohia* trees called Namauu-kalahili, thence *mauka* to Puukea a hill in the woods where we used to go after sandal wood, thence *mauka* to Namamokalei where we used to catch uwao ['ua'u]. This place is opposite to Kauanahunahu, *mauka* of Keekee about a mile. Thence to Kaluaiki. I have often been to these points from **Waiuli** to **Pohakuloa**. I have always heard that the old Government road to Kilauea is the boundary between Keaau and Olaa, I do not know the *makai* boundaries...

Nailima^K Sworn: (same witness as for Olaa) I was born at Olaa, and know the boundaries between Olaa and Keaau. My *kupuna*, now dead, showed them to me. Keaau ends at Halemaomao at the junction of the Hilo and Puna road. Olaa on the Hilo side of the road and Keaau on the Puna side. Thence *makai* to Pohakuloa, thence *makai* to Puenaena (big *ohia* trees) thence to Kalaninauli, so called by Nahienaena. Thence to Waiaiai, thence to Kauailehulehu, thence to Keanapapa at the 24 mile post thence to Kauwanahunalii, thence to Keekee, thence to Omaolaulau (at *ohia* woods, and the bullock pen) thence to **Pohakuloa**, thence to Palauhulu, thence to Kawaikahooia. Thence to Kawaa, thence to Kaialuawai, thence to Kaluamanuahi, to Kaleinakeakua, which is at the 18 mile post, thence to Pahookui, thence to Pohakuloihi, to Punahaha, 17 mile post, thence to Kapuamau page 196]. Thence to Kawaiaiai, thence to

Kapae, 16 mile post, thence to Kanekoa, thence to Mokuhaaheo, thence to Mahiki, to Kahau, to Puualae, to Kaleiki, to Kanukea, thence to Umihali at the fifteen mile post, thence the boundary runs to Kalehuapua, *mauka* of the road to Hawelu's house (thence to Kaahakanaka, outer road to Hawelu's house). Thence follow the outer road to Popoiwi, where Haanio's road branched off to go to Kukulu. Thence follow the outer road to Mahinaakaaka, opposite Kahuku, thence to Kapuhu, and *ohia* grove, where the road turns towards Hilo on the *makai* side, thence to Ahuapuu, a *puuhala* tree by the road, thence to Makaulele, a little *makai* of this place, Keaau road joins at this point the boundary leaves the Hilo road, and turns *mauka* along **Olaa**, to Kilohana, an *ahua* or mound with orange trees. Thence the boundary runs up *mauka* along *awaawa* on Kau side of Kilohana, up a hill covered with *puu hala*, thence to *pali* Puuaehu, the boundary on the brow of *pali*, this side of Keaani, which is the name of an *ohia* grove on the side of the *pali*, some distance *mauka* of Haanio's road, thence to Kaanamanu a place inside the woods. I have never been there and only heard of this place. Thence to Kaaipuaa, an old village, where people used to live. Thence to Waiaeli [also written Waiaele in text], a pond of water with *aweoweo* growing in it. Said pond is on the old road from Olaa to Pooholua. Have heard **Waiakea** joins **Olaa** and Keaau at Waiaele, Mawae is near there and have always heard that it is the boundary between Keaau and Waiakea. From the Government road to Olaa, seashore Kawiakawaa is at sea shore... [page 197]

The Ili of Keauhou, Ahupuaa of Kapapala
District of Kau, Island of Hawaii
Boundary Commission, Hawaii, Volume A, No. 1:245-246

Honorable R.A. Lyman
 Boundary Commissioner
 for Island of Hawaii

The undersigned would herewith make application for the settlement of the Boundaries of the following named Ahupuaas or lands belonging to the Estate of the Kekuanaoa & V. Kamamalu, viz...;

...Keauhou Ili of **Kapapala**, District of Kau Hawaii adjoining lands **Kapapala**, Apua... [page 245]

...Your Honor therefore will please appoint a day for the hearing of said application, and grant a certificate in accordance therewith,

(sig) J.O. Dominis, admts.
J.F.H. Harris, Atty at Law
Hilo August 16th A.D. 1873 [page 246]

***Keauhou, Ili of Kapapala Ahupuaa
District of Kau, Island of Hawaii
Boundary Commission, Hawaii, Volume A No. 1:444-446***

The *Ahupuaa* of **Keauhou**, District of Kau, Island of Hawaii, 3d J.C.

On this, the 24th day of October A.D. 1873 the Commission of Boundaries for the island of Hawaii, 3rd J.C. met at the Volcano House, Kilauea, Kau on the application of J.O. Dominis, acting for Administrator of the Estate of M. Kekuanaoa, for the hearing of the testimony in regard to the settlement of the boundaries of Keauhou, situated in the District of Kau, Island of Hawaii.

Notice personally served on J.G. Hoapili and L. Kaina; Agents for the owners of adjoining lands. Present: W.K. Moi in place of J.G. Hoapili, for applicant and for Agent of Crown lands and Kau Lands. J.N. Gilman for L. Kaina for Agent of Crown lands in Puna.

For Petition see Folio 246

Testimony

Kenoi ^K. Sworn
I was born at **Kapapala**, Kau at the time of Kiholo mua [ca. 1811], and lived on said land or adjoining lands until about Eleven years since. Am a *kamaaina* of **Keauhou** and know its boundaries. My Father, Kaheana (now dead) told them to me when we used to go after uwau and geese.

Kapapala bounds Keauhou on the South side; Commencing at the seashore at a *heiau* called Makoloa, thence the boundary between these two lands runs *mauka* to Lapo (Kuhalu is a small *pali* on **Kapapala** near the boundary). Lapo is the lower *pali* of the two; thence to Haleolono, a hill above the *pali*; thence to **Pohakuloa**, to an *ohia* tree on the *pahoehoe*;

thence to **Kulanaokuaike**, a *pali kahua-manu* [bird catcher's flat], where Kaina's man jumped off; thence to **Aiaawa**, *ohia* trees and *awaawa*; thence to **Kaaiwaa** or **Ahuahoiwale**, a *puu* and *ahu*; thence to **Kamokukolau**, an *ohia* grove [page 444]; thence the boundary runs to the South side of the crater, **Keanakakoi**; thence to **Wekahuna** [Uwekahuna], crossing the crater of **Kilauea** a little to the South west of the highest part of the bluff (highest bank of the crater). Thence to **Kilomoku**, a small grove of *koa* and *ohia*, the large grove to the South west being on **Kapapala**, thence to **Ohinale**, a long grove of trees in *aa*; thence to **Keakanaloo**, passing up the center of the *aa* flow; thence along the Hilo side of the *aa* to **Puukulua**, two small hills, the boundary passing between the two; a little toward Hilo of **Puuulaula**. (As I came along over the road today, and was looking at the mountain, I saw I had made a mistake in saying **Puuulaula** was the boundary.) From **Puukulua** (I do not know what land cuts it off, Waiakea perhaps) the boundary runs towards Hilo to **Kaa-mamauloo**, an *aa* flow on the Hilo side of the mountain. Cannot say where it is exactly as it is a long time since I have been there.

There the boundary turns *makai* towards Kilauea, to the South west side of Kipu, the hill mauka of Kulani; thence *makai* along Olaa to Kaloulukea, a *pili a*; thence to Kaloi, an open spot in the woods; thence to Kaolapalapa, a *pali* at the road; thence along the road to Pohakuloo junction of the roads to Hilo and Keauhou; thence along the road along Keaau to Kaluaike, a crater on the East side of the road & on Kahaualea. Thence along Kahaualea, along the road to Namanuakalei, a large *ohia* on the Kau side of the road, thence *makai* along the road to Kilohana; junction of Keauhou and Puna roads; thence along the land of Apua, along the road to Ohiakuapu, a cave; thence through the bush to Kuelua, a cave on the road from Kau to Panau, thence to Opuohao, a cave; thence to Pali o Keawaa to a *kukui* tree on the side of the *pali*; thence to Keamoku, a small flow of *aa*, on the pahoehoe, the *aa* on Apua Boundary, is on the South west side of it; thence to Ninanuhi, a *pali* from which you can see the seashore; thence down the *pali* to Kealaakahewahewa, an *ahu* at the *makai* road to Puna and Kau; thence to Okiokiaho a pile of stones at the sea shore; two piles of stones and a *mawae* [page 445].

The land of Keauhou is bounded on the *makai* side by the sea, and has ancient fishing rights extending out to sea... [page 446]

***Ili of Keauhou Ili, Ahupuaa of Kapapala
Boundary Commission, Hawaii, Volume B:302-304***

The *Ahupuaa* of Keauhou, District of Kau
Island of Hawaii, 3d J.C.

Case continued from October 27, 1873.
See Folio 446, Book A

On this, the 8th day October A.D. 1874 the Commission of Boundaries for the Island of Hawaii, 3d J.C. met at the Court House in Hilo for the examination of witnesses as to the boundaries of Keauhou, situated in the District of Kau, Island of Hawaii. Due notice personally served on owners or agents of adjoining lands as far as known.

Present: L. Kaina on part of applicant and
Crown Agent in Puna, E.G. Hitchcock for Crown lands
in Hilo.

Testimony

Keliilohi ^K. Sworn.

I was born at ***Keauhou, Ili of Kapapala*** at the time of *Okuu* [ca. 1804], and lived there till eight years since. I now live in Hilo. Am a *kamaaina* of ***Keauhou*** and know the boundaries. My *kupuna* and parents (Kaialii was my Father) told me the boundaries...

...***Keauhou***, I have always been told is bounded by Kahaualea; thence the boundary runs up the road to a large *ohia* tree and two mounds on each side of the road; this place is called [page 302] ***Namanuakalei***; thence to ***Kilohana***, a resting place *palipali* and *ohia* tree; thence to ***Mawae holopa***, a crack in the road where sticks are laid across to form a bridge; thence to ***Kaluaiki***, a crater on the Hamakua side of the road. I have heard that this crater is on ***Kahaualea***; thence to ***Pohakuloa*** which is the junction of the Hilo, Puna and Kau roads. Thence along the land of ***Olaa*** towards ***Kulani hill*** to a place called ***Kaloi***. Two open spots in the woods about as large as the Court House yard; the one toward Hamakua being the smallest, covered with *hapu* and ferns; thence to ***Ka-loulukea***, a palm tree; thence to ***Kulani hill***; thence to ***Namaunamaka***, a place where

we used to catch birds; thence along the land of
Waiakea to **Kiipu** [Kipu], a hill; thence to
Kaamamauloa aa about as far as from here
to Kalepolepo, above the woods. This is as far
as I know the boundaries. I have heard that
Waiakea bounds it on the Hamakua side.

There is a large *Mawae* there that runs *mauka*
and *makai*. Thence the boundary runs up
the mountain to **Puumahoe**, called **Puuula-**
ula and **Puuiki** at the junction of **Keauhou**
and **Kapapala**. **Kapapala** bounds this
land on the Kau side. The boundary at shore
is at the Eastern base of a hill called **Kuhalu**;
thence to **Lapo**, thence to **Kalakuono**; thence
to the Kau side of **Haleolono**; thence to
Limahina; thence to **Kapuuwai**, a water
cave; thence to **Kulanakuaiki**, where Kaina's
man was killed by jumping off of the *pali*.
Thence to **Aiaawa**; thence to **Kahaualea** at
the old road to **Kilauea**; thence to **Wepiipaa**,
a *pali* on the Kau side of **Keanakaakoi**.

Kamokukolau is on **Keauhou**; thence to
Kilauea passing around the South end of the
crater, **Wekahuna**; Thence *mauka* towards the
mountain to **Puaulu aa**, to **Kauhiulii**; the aa
belonging to **Kapapala**, and aa to this land.

Thence to **Kahiolo**, aa, thence to **Mokuloo**, a large
aa flow; thence to **Kapuna**, a grove of small koa
in the aa; thence to **Kahoaka**, a grove of koa
above **Keawewai**; thence to **Puulaula** between
this and **Puuike**.

C.X.d.

I went with Lydgate when he surveyed Keauhou. [page 303]
He surveyed from **Pohakuloo** to Okiokiaho and
to the points I have testified to today...

...**Keauhou** is bounded *makai* by
the sea and has Ancient fishing rights extend-
ing out to sea.

L. Kaina on the part of the Agent for Crown lands
in Puna states that he accepts the boundary between
Keauhou and **Apua** as surveyed to boundary
between this land and **Kahaualea**, and **Olaa**
to the top of **Kulani hill**, and from thence the
boundary between **Waiakea** and **Keauhou** to
Kipu; thence as surveyed by W. Webster to **Kamaa-**
mauloa, and also the survey between **Kapapala**
and **Keauhou**.

E.G. Hitchcock on the part of the Agent from Crown Lands for Hilo accepts the boundary between **Waiakea** and **Keauhou** as given in evidence by Keliilohi, and Webster's survey, and from **Kamaa-mauloa** to **Puulaula** and **Puuike** according to the evidence of Keliilohi.

Testimony Closed.

Decision

The Boundaries of **Keauhou** are decided to be as given in evidence of Keliilohi from shore to **Pohakuloa**, **Kaloi** and to top of **Kulani**; Thence to **Kipu**. Thence following W. Webster's survey of **Waiakea** to Kamaamauloa; thence up the mountain to between **Puulaula** and **Puuike**. Thence following the survey of **Kapapala** made of J. M. Lydgate to shore. Notes of survey to be filed previous to Certificate of Boundaries being issued.

R.A. Lyman

Commissioner of Boundaries 3d J.C.

For Certificate of Boundaries see No. 62, Folio 116, Liber I.

Costs see Folio 119, Liber I. [page 304]

***Ili of Keauhou, Ahupuaa of Kapapala
District of Kau, Island of Hawaii
Boundary Commission, Hawaii, Volume C No. 3:116-119***

For Testimony of Keauhou, Kau,
See Folios 444, Book A and 302 book B.

Land Boundary	No. 62
Commission	Hawaii, 3 rd J.C.

Certificate of the Boundaries of
Keauhou, District of Kau, island
of Hawaii, 3rd J.C.

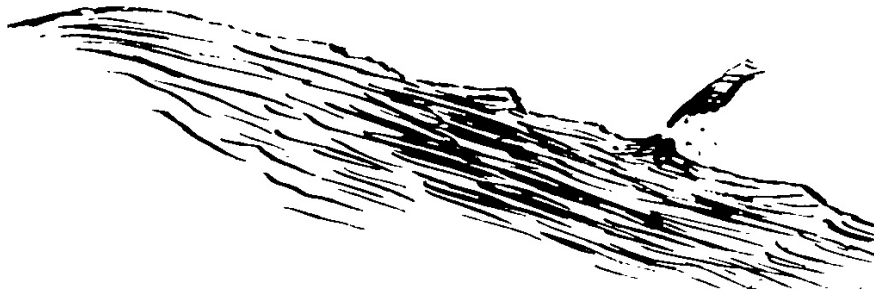
Upon the application of F.H.
Harris, attorney at law for
J.O. Dominis, administrator of
the Estate of M. Kekuanaoa, and
by virtue of the authority vested
in me by law, as sole Commissioner
of land Boundaries for the island
of Hawaii, 3rd J.C., I hereby
decide and certify the boundaries
of the **Ahupuaa** of Keauhou,
situated in the District of Kau,
Island of Hawaii, to be as
hereinafter set forth.

Given under my hand at Hilo, Hawaii,
This Twenty-first day of January, A.D. 1875

R.A. Lyman
Commissioner of Boundaries 3rd J.C.

Boundaries of **Keauhou**

Commencing at a pile of stones on
the sea shore at place called [page 118]
Oki-oki-aho, at the East corner of this
land, and running thence along the
land of **Apua**, Magnetic bearings;
North 11° 15' West 19392 feet;
to an *ohia* tree marked by two notches
and standing on the brow of the
Poliokeawe pali, at the lower end of
a point of *ohia* just East of
the **Keauhou road**;
North 20° 40' West 13250 feet;
to an *ohia* marked + at **Ohiakua-**
puu, a large water cave;
North 11° 03' East 8200 feet;
to *ohia* tree marked ++ at **Kaloi**,
the junction of the Puna and
Keauhou roads. Thence along the land
of **Kahaualea**;
North 35° 15' West 16100 feet;
to **Kaluaike** crater on the volcano
and Puna road;
North 6° 40' West 3600 feet;
to **Pohakuloa Koa** grove on the Hilo
and Volcano road; thence along **Olaa**;
North 38° 20' West 37400 feet;
to top of large hill known as **Kulani**.
Thence along land of **Waiakea**;
North 59° 45' west 17400 feet;
To above and opposite a small hill in
the edge of the woods called **Kipuu** [Kipu];
North 33° 00' West 17,800 feet;
Along **Waiakea** in accordance with
Webster's survey;
South 45° 00' West 31100 feet; [page 117]
along **Humuula** to a double hill
on the mountain called **Puuulaula**,
which presents somewhat this appearance
from the volcano;



Thence down along the land of
Kapapala;
 South 57° 00' East 17,200 feet;
 to an island in the Aa flow.
 Thence down this lava flow, which is
 the well defined boundary between
 this land and **Kapapala**;
 South 53° 35' East 46,000 feet;
 To a pile of stones by the side of
the Volcano and Kau road 1556 feet
 South West of a pile of stones on the
 top of the **Wekahuna** [Uwekahuna] bluff;
 South 55° 00' East 5140 feet;
 to **Halemaumau** lake in the crater.
 This is the old South Lake;
 South 75° 30' East 6670 feet;
 to a pile of stones a little South
 of **Keanakaakoi** crater;
 South 8° 50' East 7300 feet;
 To pile of stones on *ahua* at
Kamokukolau;
 South 24° 30' East 11150 feet;
To a pile of stones on Kulanaokuaiki
pali and on the edge of the Puna [page 118]
and Kau road;
 South 16° 40' East 30220 feet;
 To pile of stones on the sea shore at
 place called **Makoloa**, an old *Heiau*.
 This place is 6111 feet East of the top
 of **Kapukapu** hill. Thence along the
 sea shore to point of Commencement.

Containing an Area of 50,740 Acres

R.A. Lyman
 Commissioner of Boundaries 3d, J.C.

Surveyed by J.M. Lydgate... [page 119]

The Ahupuaa of Kukuau 1st (bounding Waiakea)
District of Hilo, Island of Hawaii
Boundary Commission, Hawaii Volume B:160-165

Kaikamahine^K. Sworn. [page 160]
 ...the boundary runs to **Kanekaulukaau** an old
 planting place in the woods, belonging
 to **Waiakea**. **Palaa** is the name of the
 adjoining planting place on **Kukuau**.
 Thence to the **Hilo** side of **Ohuliipe**, a
heiau belonging to **Waiakea**. This *heiau*
 is on a hill and from it you can see the sea.
 The boundary line is some distance from
 this hill, it follows up a ridge that runs
mauka and *makai*, and is the dividing line;
 it is where *painiu* [*Astelia*] grows. Thence

from the ridge to **Nehuiki** where we used to get canoes eight fathoms long; very large **koa** grows there; thence to **Kailio** where **koa** and **ohia** grow together; thence to **Kalai-holona**; thence to **Kailiholelei**, where the bird catchers used to catch oo; thence to **Muanui**, another bird catchers place. This is as far as I know the boundaries of Kukuau 1st.

C.X.d... [page 161]

Boundary Commission opened and case continued on the 17th of December A.D. 1873 according to adjournment from the 16th inst.

Kaaua^K. Sworn.

I was born at **Waiakea uka** at the time of **Akakai Mokuakai** [The battle of Mokuohai, 1782]. I know a part of the boundaries between **Kukuau** 1st and **Waiakea**. Kuakaahalawa and Keike, who were bird catchers and canoe makers and old settlers on the land, and who knew all the boundaries, told them to me... [page 163]

...**Niaheakealahau** where Waiakea takes all the road and Kukuau 1st is confined to the tall **ohia**; thence the boundary runs to the Hilo side of a bathing place called **Kuawai**; this place is on Kukuau 1st; thence to **Kahuakamo** (In olden times a noted place for cock fighting); thence the boundary runs along the line of the old road (now used for drawing down wood) to **Kuaiaina**, where the roads from Kukuau and Waiakea join. The **pahoehoe** and trees on it belong to Waiakea, and the forest on the Hilo side to Kukuau 1st. Thence to **Kaipopolo**, a place where **popolo** now grows.

Note.

Witness states that Mr. Webster marked a tree, on the opposite side from Kaipopolo, as the true boundary between the two lands, but as he objected to that boundary Mr. Webster changed the survey to Kaaipopolo.

There is a large tree with a blaze on it at this place; thence to **Kahamouli**; thence to **Ohuliipii** [Ohuliippee], a hill on Waiakea. I do not know of there being a **heiau** [page 164] there in olden times; thence to a place called **Kanoa**; thence to **Nehuiki**, an old canoe

building place; thence to **Kaileo**, another canoe building spot where *koa* trees are growing. I have lived there; thence to **Kalaiholona**, a canoe building place; thence to **Kailihelele**, a grove of *koa* trees; thence to **Muanui**, a great bird catching place; thence to **Hoaa**, the boundary is on a line with Hoaa, but the place itself is way inside of Waiakea. I have always been told that Kukuau ends at Piliiki. I do not know what other lands join above it. Opuloa^K and Nahua (now dead) and Kaawa from Olaa were the *kamaaina* with Webster. Kahaole Opunui now living in Hamakua was a *kamaaina* of Kukuau 1st.

C.X.d... [page 165]

The Ahupuaa of Olaa
District of Puna, Island of Hawaii
Boundary Commission, Hawaii Volume B:305-306

The Ahupuaa of **Olaa**, District of Puna
 Island of Hawaii

On this, the 8th day of October A.D. 1874, the Commission of Boundaries for the Island of Hawaii, 3d J.C. met at the Court house in Hilo, on the application of F.H. Harris, Attorney at Law for J.O. Dominis, Agent of Crown Lands for the settlement of the boundaries of **Olaa**, situated in the District of Puna, Island of Hawaii. Due notice of hearing personally served on all owners or agents of adjoining lands, as far as known. Present: L. Kaina for all parties concerned.

For Petition see Folios 238 and 240, Book A.

Testimony

Nailima^K. Sworn.

I was born at **Olaa** at the time of the death of Kekua-kalani [1819] and lived there until about a year ago when I moved to Hilo. I am a *kamaaina* of **Olaa** and know the boundaries of the land. Kapuna, an old *kamaaina* of **Olaa** told them to me. Commencing at **Pohakuloa** the junction of the Hilo and Puna roads to Kilauea at the mauka corner of **Olaa** and **Keaau** on the boundary of **Keauhou**; thence the boundary of **Olaa** runs *makai* along the old road through the edge of the *koa* grove; thence *makai* still along the road through the woods to **Keekee** to **Palauhulu**, junction of the **Panau** and **Hilo** road.

Thence along the road to **Kanekoa** following the road through houses; thence along the road to *makai* of where the old road to Puna used to run. This point is outside of Naia's houses, where you look *makai*. Thence *makai* to the junction of **Keaau** road at the grove of *ohia* trees called **Pahee**. Thence following along the Hilo road to *makai* of **Makaulele** to another junction of **Keaau** road; thence *mauka* to *Puhala* trees on an *ahua* on the Puna side of an old *kauhale* called **Kilohana**, near some orange trees. Thence *mauka* to **Puaaehu**, a *kauhale* on the **Hilo** side. Thence *mauka* to **Kanamau**, an old *kauhale* on the boundary covered with *ohia* trees. Thence to [page 305] **Kaaipuaa**; thence to **Waiaele**, a swamp in the woods; thence to **Mawae** junction of **Olaa** and **Waiakea**; thence along **Waiakea** to the upper end of land.

C.X.d.

Note.

L. Kaina declines to question the witness on the boundaries between **Olaa** and **Waiakea** as the Agent of Crown Lands accepts the boundaries as surveyed by W. Webster. He also accepts the boundary of **Olaa** and **Keauhou** as given in the Decision of **Keauhou**.

No more witnesses on hand.

Case continued until the Notes of survey are made out so that the Commissioner of Boundaries can decide the point in the woods where **Keaau**, **Olaa** and **Waiakea** join as J.O. Dominis, Crown Agent and C.R. Bishop, on the part of owner of **Keaau**, leave it with the Commissioner to decide so as to save the expense of looking for the point given in evidence, as said point is in the middle of a dense forest and it is over forty years since the **kamaaina** has been there.

R.A. Lyman
Commissioner of Boundaries, 3d J.C.

Notes of survey filed and Certificate of Boundaries issued
January 21st A.D. 1875

See No. 60 Folio 109 Liber I... [page 306]

Ahupuaa of Olaa
Boundary Commission, Hawaii Volume C, No. 3:109-111
For Testimony of **Olaa**
See Folio 305, Book B.
Land Boundary No. 60
Commission Hawaii 3rd Judicial Circuit

Certificate of the boundaries of **Olaa**,
District of Puna, island of Hawaii,
3rd J.C.

Upon the application of "J.O. Dominis,
Agent for Crown lands, and by virtue
of the authority vested in me by law
as sole Commissioner of Land
Boundaries for the island of Hawaii,
3rd J.C., I hereby decide and certify
the boundaries of the *Ahupuaa*
of **Olaa**, situated in the District
of Puna, Island of Hawaii, to be as
hereinafter set forth.

Given under my hand at Hilo, Hawaii,
This Twenty-first day of January A.D. 1875.

R.A. Lyman
Commissioner of Boundaries, 3^d J.C.

Boundaries of **Olaa**.
Commencing at the top of a wooded
Hill known as **Kulani** at the West
corner of this land and running
thence along the land of **Keauhou**,
magnetic bearings South 38° 20' East [page 109]
37,400 feet to a point on the **Hilo**
and Volcano road at **Pohakuloa Koa**
grove about 1730 feet from the junction
of the **Hilo** and Puna roads. Thence
along the land of **Keaau** North
46° 38' East 10,230 feet; North 56° 15' East
9400 feet to **O** cut in the *pahoehoe*
on a little rise in the road, about
a mile and a quarter above the
Omao woods; North 69° 18' East 6400 feet
to **O** cut in the *pahoehoe* on the
road in the belt of woods at **Omao**;
North 40° 42' East 13,070 feet to **K** cut
in the road at **Kuhalau**; North
29° 12' East 12,140 feet to **A** cut in the
road at place called **Kahooku** where
Neneleau trees are growing and from
where the houses at **Kanekoa** can first
be seen in coming down from the
Volcano; North 24° 00' East 23,810 feet
to a pile of stones on a small *ahua*
by the side of the road (East side) a
little below **Waiuli**; North 42° 10' East
12,350 feet to a pile of stones at the upper
edge of little point of *ohia* through
which the road runs; North 13° 05'
East 5600 feet to a large pile of stones at the

lower side of the road at **Makaulele**;
North 16° 10' East 985 feet to **O** cut in the
road at the extreme East corner of this
Land. Thence still running along the
Land of **Keaau**; South 85° 00' West
4250; South 72° 20' West 25,800 feet [page 110]
to a place where the Land of **Keaau**
is cut off and this land joins the
Land of **Waiakea**; South 54° 45' West
60,400 feet along the land of **Wai-**
akea to the hill at the point of
Commencement. Containing 54,260 Acres.

R.A. Lyman
Commissioner of Boundaries, 3^d J.C.

Surveyed by J.M. Lydgate... [page 111]

The Ahupuaa of Waiakea

***Waiakea Ahupuaa, District of Hilo,
and Olaa Ahupuaa, District of Puna, Hawaii.
Boundary Commission Volume A No. 1 pages 238-240***

Honolulu, July 7, 1873

R.A. Lyman, Esq.
Hilo

Dear Sir
Mr. F.H. Harris is authorized by the
Commissioners of Crown lands to make appli-
cation to you as Commissioner of Boundaries
to have the boundaries of all Crown lands on
the Island of Hawaii defined. He has a list of
the lands with him.

I have also authorized Mr. F.H. Harris
to make application to you for the settlement
of boundaries of all lands belonging to Est. of
His late Majesty and Her Excellency, R.
Keelikolani.

I expect to be in Kona by the trip
of the "**Kilauea**" which leaves here on the 28th
inst. Can't you make it convenient to come
round as the steamer goes to Hilo on that trip.
I wish also to apply for the settle-
ment of the boundaries of Honohina.

I remain,
Yours Respy.
Jno. O. Dominis

Honorable R.A. Lyman
Boundary Commissioner
for Island of Hawaii, Haw. Is.

The undersigned would herewith make application for the settlement of the boundaries of the following named Ahupuaas or Lands belonging to the Crown, viz.:

Waiakea in the District of Hilo bounded by **Keaau**, **Olaa**, **Kapapala**, **Humuula**, Piihonua... [page 238]
Humuula in the District of Hilo bounded by Kapapala, various lands in Kona and Kohala and Hamakua, and Hakalau, Makahanaloa, Papaikou, Paukaa, Piihonua and Waiakea in the District of Hilo... [page 239]

...**Olaa** in the District of Puna, bounded by **Keaau**, Wm. C. Lunalilo, H. M. **Waiakea** & **Kapapala**...

Your Honor will therefore please appoint a day for hearing the evidence in the foregoing named lands and having decided upon the same to grant a certificate to that effect to the undersigned.

Hilo Hawaii, August 16th A.D. 1873

(Signed) Jno. O. Dominis
Crown Land Agent.
by F.H. Harris
atty. at law. [page 240]

The metes and bounds of **Waiakea** were decided by testimonies and surveys of adjoining lands—‘Ōla’a and Kea’au, Puna; Keauhou and Kapāpala, Ka’ū; and Humu’ula on the mountain lands of Hilo; thus, no further commission proceedings were conducted under the heading of Waiākea.

The “Kulani Triangulation Station”

In the 1890s, the Government Survey Division undertook a series of surveys to map out the interior lands on the island of Hawai’i. Through several communications between field surveyors and W.D. Alexander, Surveyor General, we learn that Pu’u Kūlani was chosen as a triangulation station for the surveys, and of the great difficulty in reaching the location. Almost no *kama’āina* could be found in the early 1890s to lead the survey party to the *pu’u*.

Hilo, Hawaii

April 27, 1891

E.D. Baldwin; to Professor W.D. Alexander:

...I arrived in Hilo last Saturday night from Puakala. We have had fairly good success at Aahuwela, having measured the angle between Alala and **Kulani** also nearly finished the angle between Halai and **Kulani** also Alala and Halai. The 8 inch is a very slow instrument to work with, there being a great deal of lost motion in setting. But by a great deal of care in setting, I believe we have managed to do very fair work with it. The measurements of the Alala Halai angle so far close the triangle within 4”.

We had a very rough trip up the mountain; it raining steady all of the three days on our way to Puakala. Thrum started the day before I did and reached Hale-Loulu just at dusk; and was unable to start a fire, everything was so wet. He had a great deal of trouble with the pack animals in the woods. Two of our animals were completely used up by the trip, and I am afraid will be unfit for use any more.

I will start back early tomorrow morning. I send down any April accounts; the laborers pay roll, I will send down next month... [HSA Interior Department, Survey]

Hilo, Hawaii

May 30, 1891

E.D. Baldwin; to Professor W.D. Alexander:

...We are sharing a very tedious time of it upon the mountain; the weather has been very fair below, but the fog and clouds hang just over Aahuwela, so that for the last three weeks we have done almost nothing.

I have given up the idea of trying to see Kapoho or the other Puna stations from Aahuwela as they are always covered with a cloud, and I am afraid we will have to wait until doomsday to see them. I am going to send a heliotrope to Kaloli point – a short ways beyond Keaau, and devote myself to the large quadrilateral Aahuwela, Alala, **Kulani** and Kaloli, and work on through Puna from the base, **Kulani** to Kaloli which will form good triangles with my other Puna stations.

We hope to finish with Aahuwela soon if the weather permits, at any rate I am going to finish the topographical work around the base of the mountain to Kalaieha and a little beyond, and leave Thrum to watch at Aahuwela. We have been on Aahuwela for the last four weeks, every morning at day light, and then gone up before noon, and remained until there was no hopes of its clearing, without accomplishing any thing on the Hilo station with the exception of **Kulani** and **Puu Ulaula** which are always clear in the morning.

Kulani is just below the almost perpetual cloud line, so that I think it will not take us long there.

I have no suitable map tin to send the Hilo map down in; and think rather than run any risk of damaging the map, I will bring it down with me, as I intend to go to Honolulu on June 22nd and attend the Punahou Jubilee.

I send part of my accounts for the month of May, that is all but the labor items. Can you please turn over to H. Chamberlain \$72.00 on my account.

We need all the animals we can get, but they must be strong and in fairly good condition to stand our hard trips. If the Molokai horses are in good condition, I think we had better have them up here... [HSA Interior Department, Survey]

Hilo, Hawaii

August 23, 1891

E.D. Baldwin; to Professor W.D. Alexander:

...I returned last Thursday, having stopped over a trip on Maui. Thrum saw Chamberlain's heliotrope at Kaloli, and has obtained a few angles between it and **Kulani**, as Alala was invisible; he then came to Hilo, and notified Horace that he was *pau* with Kaloli. Horace has gone up the mountain with Thrum to help him down with camp. Also I am having Thrum fix a few points along the 1855 flow as he comes down; which will not take long and can be easily done now as we have flags on all the prominent Mauna Kea cones which he can sight to.

I expect Thrum & Chamberlain down the latter part of this week; and have everything ready to move right away to **Kulani**. From **Kulani** we will move to Kaloli point, and by occupying these two points first – will fix many points along the Puna ridge. We hope before long to be well into Puna; at any rate I shall try and push the Puna work, so that we can have something to show, for the next Legislature.

The Molokai animals are doing well, so far. They have been some-what used-up by some of the trips, but seem to be tough animals and pick up readily.

The Humuula boundary case came up last Thursday, and as it will probably be referred to the Boundary Commissioner to settle upon where the line should go, I thought you would probably wish me to wait until we get his decision – before making out notes of survey from Pohaku o Hanalei to Kaupakuhale. I am now plotting up any mountain work to a scale of 2000 feet to the inch, which will take in all we have done around the base of Mauna Kea. I would like to get Lyon's location of Kaupakuhale, in Hinahina, Kaloaloo, and some of his boundary points this side of Kaloaloo station, so that I can put them on the map, and finish up the map.

I noticed that the few clear nights that we had at Aahuwela, it was also clear during the morning, but I think it will be a good idea to have the large lanterns you speak of ready, so that if necessary we can try them. Our instrument seems to have no lamp to light the cross hairs; also we will want some dark lanterns. [HSA Interior Department, Survey]

Hilo, Hawaii

September 2, 1891

E.D. Baldwin; to Professor W.D. Alexander:

...Thrum and Chamberlain arrived this evening from the mountain. I wrote to Thrum to give up locating any points below Lydgates ***Mawae*** on the 1855 flow, so that we might push on to ***Kulani***. We will make a start for ***Kulani*** next Monday. In regard to the location of those five points – I understood that you wished the notes of survey from Kaupakuhale on to Pohaku o Hanalei, and as supposed that Lyon's had located Kaupakuhale & did not relocate it again; and after receiving your letter a month ago; wrote by return steamer for Lyon's location of Kaupakuhale, so that I could get the distance and bearing from Kaupakuhale to Koloa from my map. Lyon's has not as yet sent me the location of Kaupakuhale; but wrote by last steamer that he would like the coordinates of four of the points referred to Aahuwela, which I have sent him by this steamer.

We have been making up a lot of oil-skin clothes and bags, also we made a fly and tarpoling for our small tent, which accounts for the large amount of canvas duck we have been buying.

Our large tent and fly are nearly all to pieces. Can you please send us up another large tent and fly. Also I would like a lot of blank vouchers and a large calculation book.

Can you please pass H. Chamberlains pay over to W. Frear \$79.85. And deposit \$300.00 in the Postal Savings Bank for me, and please send the balance to me...[HSA Interior Department, Survey]

Kulani Trig. Station

November 24, 1896

J.S. Emerson; to W.D. Alexander

...After 8 ½ days of severe labor, my party of 4 strong and experienced wood cutters, yesterday completed the road through the *Koa* forest and *Pulu* jungle to this point. We started a blazing fire at 4:30 this morning. At 8:30 our party, with 5 good pack mules, left the *Kipuka* and at 10:50 we had reached the base of this noble hill. About 40 minutes of this time was spent in cutting away some obstructions in the path, leaving 1 hour and forty minutes for travelling time. While the mules are resting in an *akala* thicket at the base of the hill. My men are climbing the ascent with loads that surprise me. I found it hard work to lug a gun and overcoat, and my handwriting shows the

eddicts of the exertion on my nerves and muscles. The weather continues almost perfect. We have been most fortunate in having two weeks of such unusually clear weather. I have never known it better since I began my work last July. At the moment (12:25), Mauna Kea is clouding in, while M. Loa has only two small specks of clouds just forming. Last Sunday was the finest day of the season. A heavy frost covered the ground when we awoke in the morning. My men who had never seen anything of the kind before, the guide was not among them, tasted to see if it was salt, and asked me what it was. All that day the sun shone from a cloudless sky. We went to **Keawewai** to bathe, and the view of the mountain and coast was wonderfully fine. I can't expect such weather to last. **Kulani** signal is in distress. A few tattered rags here and there all over the tripod, a bare pole with a rag or two on it, the whole surrounded by a jungle of brush 6 feet high, with a few bare trunks of *lehua* trees near by, easily mistaken for the signal, that is all. No wonder I have had trouble to see anything to sight on.

Kamaki flagged the signal as he had been taught. The system or lack of system was all wrong. Of course heliotropes have to be used to supply the defects of such signals... [HSA –Survey DAGS 6]

Travel and Access in the 'Ōla'a-Waiākea Forest Lands

Because of the remote nature of the 'Ōla'a and Waiākea forest lands which comprise the present-day Pu'u Maka'ala NAR, no government communications pertaining to historic trails or government road projects exist for the region. The Boundary Commission testimonies cited above, describe trails through the forest lands, rising from the lowlands of Waiākea, 'Ōla'a, Keauhou and Humu'ula. Based on the native traditions and *kama'āina* testimonies, as those above, it is likely that "practitioner" trails existed throughout the forest region. Features such as "*kauhale manu*" (bird-catcher's shelters), "*kahua kalaiwaa*" (canoe-makers clearings), "*oioina*" (trailside resting places and shelters), the "*ala hele*" (trails), and other features associated with traditional and customary accesses, would leave little evidence in the present-day, as the traditional features and uses generally had minimal impact on the natural landscape. Those things left behind, not cared for or maintained, were simply reabsorbed into the landscape.

We do know that by 1847, the Kingdom undertook a program of developing the *Alanui Aupuni*, or Government Road system. The "roads" were generally laid out on, or near traditional alignments, though as the system matured, and greater need for roads which could support transportation of goods evolved, new and straightened alignments were developed. One of the earliest communications documenting this process on the island of Hawai'i, is found in a letter from Governor Kapeau to Premier and Minister of the Interior, Keoni Ana on August 13, 1847:

Aloha oe e ka mea Hanohano –

...I have a few questions which I wish to ask you. Will the police officers be required to pay, when they do not attend the Tuesday (*Poalua*) labor days? How about parents who have several children? What about school teachers and school agents? Are they not required to work like all other people when there is Government work on the roads and highways? I believe that school agents, school teachers and parents who have several children, should only go and work on the weeks of the public, and not on the *konohiki* days...

...The roads from Kailua and down the *pali* of Kealakekua, and from Kailua to Honokohau, Kaloko, Ooma, the place where our King was cared for, and from thence to Kaelehuluhulu [at Kaulana], are now being surveyed. When I find a suitable day, I will go to Napoopoo immediately, to confer with the old timers of that place, in order to decide upon the proper place to build the highway from Napoopoo to Honaunau, and Kauhako, and thence continue on to meet the road from Kau. The road is close to the shore of Kapalilua. Also, the road that is to go *makai* of Kukalaula, below Keauhou [Ka'ū], and then continue to the shore of Puna and Hilo, will probably begin at Keaiwa.

The width of the highways round Hawaii, is only one fathom, but, where it is suitable to widen where there is plenty of dirt, two fathoms and over would be all right. For the town of Hilo, I have appointed some road overseers, being B. Pitman, Frank W. Wood, maybe Koana [Titus Coan], Halai, Luhilea, Kaiana. Three natives and three foreigners. They get no pay for this work which has been placed upon them, they give their services free to this work because of their desire to improve the land.

If the roads are put into proper condition, there are a lot of places for the strangers to visit when they come here. The Kilauea volcano, and the mountains of Maunaloa, Maunakea, Hualalai. There is only one trouble to prevent the building of a highway all around, the steep gulches at Waipio and Pololu, but this place can be left to the very last. The palis at Hilopali are also very bad, but another and better place has been found, it is a little *mauka* of that, that is what the old timers living at Kulaimanu say. A foreign carpenter has proposed to me that he build the bridge over Wailuku completely, all the material to be his and also the labor, and to pay him two thousand dollars. I did not pay much attention to this, because, I do not believe that it can be built for that money, it will take three thousand dollars to finish it, and maybe it will go into four thousand... [HSA Interior Department, Roads; translation modified by Maly]

As described in the preceding letter, no roads across Keauhou, the 'Ōla'a-Waiākea forest lands, into Humu'ula were planned. By the late 1800s, and through the 1940s, the primary users of trails in the *mauka* lands were ranchers, traveling between Humu'ula and Pu'u 'Ō'ō to Keawewai and Keauhou, and those traveling on to Kapāpala and Kahuku.

In 1932, as a part of the Land Court Application of W.H. Shipman for the land of Kea'au, testimonies of two elder *kama'āina* were recorded, documenting primary routes of travel in Kea'au, and the relationship of native residents with 'Ōla'a and neighboring lands. The testimony, viewed in the collection of W.H. Shipman, Limited, shares the same concepts of traditional and customary access as described in traditional texts and historical testimonies cited above.

Affidavit of David Malo

DAVID MALO, of Keaukaha, S. Hilo, Hawaii, being first duly sworn and upon his oath, deposes and says as follows:

I was born in the year 1852, at Makuu, Puna, Hawaii.

I am 80 years old.

I was brought up in Makuu, Puna, and lived there for many years, up to the time when my father died. I was then about 18 years old.

The King Highway or Main Public Highway starts from Puumaile, Waiakea, and goes through Waiakea, Keaau, Kapoho, Kalapana along the seacoast and on Panau to the Volcano...

The old Volcano Highway starts from Hilo and goes through Puuainako, Waiakea, and goes on to the present 4 mile bridge, thence it turns off to the right or *mauka* side of the 4 mile bridge and goes on till it crosses the present main public highway about 7 miles, thence it goes on till it meets again the present main public highway at 8 miles, thence it goes on to 9 miles Olaa, thence it goes on to Kuolo, and on the *pahoehoe* to Mahinaakaka, and on to Waiuli where Hawelu's Hotel was located, thence it goes on to Kalehuapua, Kapae, Kapueuhi, and on to Kekee where Shipman's cow pen is, where it meets with the present highway, thence it goes on to the Volcano. The old Volcano Highway separates Keaau from Olaa.

The people that were living in Olaa were tenants at will (*Komo Kino*) while under Queen Emma. My father was the Queen's *Konohiki*. The people that were living in Keaau paid money for living on the land. Only tenants were allowed to go on the land. The people of Waiakea were not allowed to go on Keaau without permission...

There was a big village *mauka* of Keaau in Olaa.

The only main trail or main Public Highway that was used by everybody at that time is the trail that starts from about 12 miles Olaa, and goes down to Waipahoehoe, and on to Makuu till it meets the King Highway.

There were many other trails running down to the King Highway and the beach, some of them were made by cowboys for driving cattle, and some of them were made by cows...

Subscribed and sworn to before me this 15th day of December, A.D. 1932.

Affidavit of Mai Keoki [George Mai]

MAI KEOKI, of Keaau, Puna, Hawaii, being first duly sworn and upon his oath, deposes and says as follows:

I am 64 years old.

I was born May, 1868, at Paki, Keaau, Puna, Hawaii.

I have lived in Keaau, Puna all my life time.

Only one Keaau.

When Keaau came into Mr. Shipman's possession, the people that were living in Keaau became tenants at will (*Komo Kino*).

The people of Olaa lived in Olaa and the people of Keaau lived in Keaau...

Hawelu's Hotel was on Olaa. Mr. Hawelu was Mr. Shipman's foreman.

The trail or road from Olaa to Makuu is the main road upon which the *kamaaina* and strangers travelled from Makuu to the old Volcano Road, and from Olaa to Makuu. This main trail is the road which David Malo had described.

Another small trail starts at 12 miles Olaa and goes down to Keakuamakakii, where it passes Hilo of the Stone Crusher *makai* of the Pahoa Highway, thence it goes on to Lopaiki, and on to two cocoanut trees, thence it goes on to Kaikoo where it branches off. One branch goes down to Keauhou and another branch goes down to my place. On this trail the people of Olaa came down to my place.

During Obed Spencer's time there were no tenants at will. Since the fence was put up along the Pahoa Road, this trail has not been used by anybody. Nobody has used this trail since 1910 or 1911. When the people were made tenants at will, the people have not used this trail since...

Subscribed and sworn before me this 17th day of December, A.D. 1932.

It appears that it was not until the late 1940s, that a road was cut up through the Waiākea-‘Ōla’a forest lands, and this in conjunction with the opening of the Kūlani Prison Farm. In the early 1950s an access road was cut from the Kūlani facility to the summit region of Mauna Loa for a weather observatory. At one point, the program manager, Tom Vance, proposed that the road be planted with the trees of the world, as a scenic drive to Mauna Loa (H. Ellis, pers comm. 2004; and HSA Series GOV 9-7).

While Mr. Vance’s idea was a grand one, looking to the economic benefit of Hawai’i Island, we can be thankful that the plan never unfolded. The toll of an influx of alien species on the native ecosystems that are now a part of the Pu’u Maka’ala NAR would have been significant.

NĀ ULU LĀ'AU A ME NĀ KINI KINO LAU O LOKO (THE FORESTS AND MULTITUDES DWELLING THEREIN)

As discussed in earlier sections of this study, Hawaiian traditions and beliefs, shared spiritual and familial relationships with the natural resources around them. Each aspect of nature from the stars in the heavens, to the winds, clouds, rains, growth of the forests and life therein, and everything on the land and in the ocean, was believed to be alive. Indeed, every form of nature was a body-form of some god or lesser deity. As an example, in this context, and in association with lands which are part of, or adjoining the landscape of the Pu'u Maka'ala NAR, we find that the god Kū-ka-'ōhi'a-Laka, is represented as a deified 'ōhi'a; Kū-lili-ka-ua, formed the mists and protected the forests of this upland region; and Ua-kuahine is given as the name of another goddess whose body form is that of the mists that settle on the forest. Tradition also tells us that the gods and goddesses of the forests were very protective of them. In olden times, travel through them was accompanied by prayer, and care. Many a careless traveler, or collector of resources, found themselves lost in a maze of overgrowth and dense mists, for disrespectful and careless actions. In the Hawaiian mind, such nature body forms of plant, animal, and weather, were believed to be "*kino lau*," the myriad body-forms of the gods and creative forces of nature that gave Hawaiians life.

In this context, care for each aspect of nature, the *kino lau* of the elder forms of life, was a way of life. This concept is expressed by Hawaiian *kūpuna* (elders) through the present day, and is passed on in many native families. When discussing the relationship of native families with the lands and resources around them, it is not uncommon to hear *kūpuna* express the thought — "*E mālama i ka 'āina, a e mālama ho'i ka 'āina iā 'oe! E mālama i ke kai, a e mālama ho'i ke kai iā 'oe!*" (Care for the land, and the land will care for you! Care for the sea, and the sea will care for you!). This concept is one that is centuries old and is rooted in the spirituality of the Hawaiian people. Importantly, the converse is that when one fails to care for, or damages nature—the *kino lau*—around them, they are in-turn punished. This is expressed in many traditional sayings, one being, "*Hana 'ino ka lima, 'ai 'ino ka waha!*" (When the hands do dirty-defiling work, the mouth eats dirty-defiled food!). In this cultural context, anything which damages the native nature of the land, forests, ocean, and *kino lau* therein, damages the integrity of the whole.

Of course, since traditional times, many things that were a part of the native Hawaiian natural and cultural landscape have disappeared—being destroyed by changes in land tenure, changes in residency and subsistence practices, and by the introduction of tens-of-thousands of alien species which have overrun the formerly balanced and fragile bio-systems that made Hawai'i unique.

Writing in the late 1860s and early 1870s, native historian, S.M. Kamakau, related to readers some aspects of the Hawaiian association and understanding of the mountain lands and forests. While describing traditional knowledge of the divisions of land, Kamakau wrote:

Here are some other divisions of the islands, together with their descriptive names.

Heights in the center or toward the side of a land, or island, are called *mauna*, mountains, or *kuahiwi*, "ridge backs." The highest places, which cover over with fog and have great "flanks" behind and in front (*kaha kua, kaha alo*)—like Mauna Kea—are called *mauna*; the place below the summit, above where the forests grow is the *kuahiwi*. The peak of the mountain is called *pane po'o* or *piko*; if there is a sharp point on the peak it is called *pu'u pane po'o*; if there is no hill, *pu'u*, and the peak of the mountain spreads out like the roof of a house, the mountain is described as a *kauhuhu mauna* (house ridgepole mountain); and if there is a precipitous descent, *kaolo* [from the peak] to the *kauhuhu mauna* below this is called a *kualo* ("block"). If there are deep ravines ('*alu ha'aha'a*) in the sides of the mountain it is called a *kihi po'ohiwi mauna* ("shoulder edge" mountain). A place that slopes down gradually (*hamo iho ana*) is called a *ho'oku'u* (a "letting down"); a sheer place is called a *pali lele koa'e* (cliff where

koa'e birds soar), or a *holo* ("slide"), or a *waihi* (a "flowing down"). Rounded ridges that extend from the mountains or "ridge backs" or hills are called *lapa* or *kualapa* or *mo'o*—and, if they are large, *'olapalapa* or *'omo'omo'o*. Depressions between *lapa* or *mo'o* are *awawa*, valleys.

Here are some names for [the zones of] the mountains—the *mauna* or *kuahiwi*. A mountain is called a *kuahiwi*, but *mauna* is the overall term for the whole mountain, and there are many names applied to one, according to its delineations (*'ano*). The part directly in back and in front of the summit [Kamakau 1976:8] proper is called the *kuamauna*, mountaintop; below the *kuamauna* is the *kuahea*, and *makai* of the *kuahea* is the *kuahiwi* proper. This is where small trees begin to grow; it is the *wao nahele*. *Makai* of this region the trees are tall, and this is the *wao lipo*. *Makai* of the *wao lipo* is the *wao 'eiwa*, and *makai* of that the *wao ma'ukele*. *Makai* of the *wao ma'ukele* is the *wao akua*, and *makai* of there the *wao kanaka*, the area that people cultivate. *Makai* of the *wao kanaka* is the *'ama'u*, fern belt, and *makai* of the *'ama'u* the *'apa'a*, grasslands.

A solitary group of trees is a *moku la'au* (a "stand" of trees) or an *ulu la'au*, grove. Thickets that extend to the *kuahiwi* are *ulunahale*, wild growth. An area where *koa* trees suitable for canoes (*koa wa'a*) grow is a *wao koa* and *mauka* of there is a *wao la'au*, timber land. These are dry forest growths from the *'apa'a* up to the *kuahiwi*. The places that are "spongy" (*naele*) are found in the *wao ma'ukele*, the wet forest.

Makai of the *'apa'a* are the *pahe'e* [*pili* grass] and *'ilima* growths and *makai* of them the *kula*, open country, and the *'apoho* hollows near to the habitations of men. Then comes the *kahakai*, coast, the *kahaone*, sandy beach, and the *kalawa*, the curve of the seashore—right down to the *'ae kai*, the water's edge.

That is the way *ka po'e kahiko* named the land from mountain peak to sea. [Kamakau 1976:9]

Among the native terms listed by Kamakau above, is one which stands out in reference to the Waiākea-Ōla'a forest lands of the Pu'u Maka'ala NAR—this zone is the *wao akua* (zone or region of the gods and deities). The *wao akua* is so named because of the pattern of cloud cover and precipitation which settles upon the mountain slope—this covering was interpreted as concealing from view the activities of the gods and deities therein (cf. David Malo 1959:16-18; and M.K. Pukui, pers. comm. 1975).

In the traditional context above, we find that the mountain landscape, its' native species, and the intangible components therein, are a part of a sacred Hawaiian landscape. Thus, the landscape itself is a highly valued cultural property. Its protection, and the continued exercise of traditional and customary practices, in a traditional and customary manner, are mandated by native custom, and State and Federal Laws (as those establishing the Ōla'a and Waiākea Forest Reserves, the Pu'u Maka'ala Natural Area Reserve, and the Endangered Species Act).

In this discussion, protection does not mean the exclusion, or extinguishing of traditional and customary practices, it simply means that such practices are done in a manner consistent with cultural subsistence, where each form of native life is treasured and protected. *Kūpuna* express this thought in the words, "*Ho'ohana aku, a ho'ōla aku!*" (Use it, and let it live!).

Transitions in the Health and Value of The Hawaiian Forests Following Western Contact

We find that shortly after western contact—the introduction of alien herbivores, and financial value being placed upon resources of the forests and mountain lands—the health and integrity of the resources began to decline. After western contact, the forests were primarily evaluated in the terms of

the western economic system. While in the centuries prior to the arrival of westerners in 1778, and subsequently into the reign of Kamehameha I, the system of land tenure and management mirrored the natural landscape of the islands, later management systems focused on what, and how much could be gotten from the land.

Immediately, upon western contact, foreigners looked at the land—first as a source of provisions for ships; and second as a means for earning money, through the trade of natural resources such as *‘iliahi* (sandalwood). In 1778, European boars, goats, rams, and ewes were introduced by Captain Cook. While offered as a “gift,” one of the motivating factors was that leaving the animals behind would produce a breeding stock to supply other foreign ships (Beaglehole 1967:276, 578-579). Later, in 1793, cattle were brought to Hawai‘i by Captain Vancouver. Given as gifts to Kamehameha I, the cattle were first let off at Kawaihae (then at Kealahou), and were placed under a ten-year *kapu* to protect them and allow them to reproduce (Kamakau 1961:164). Between 1793 and ca. 1811, new stock was added, and the numbers of cattle had increased dramatically. The introduced cattle, goats and sheep rapidly became a problem to the native population and forests.

While the introduced animals were making their way into the higher elevations, other economic pursuits also led to the clearing of large tracts of land. In the early 1800s (ca. 1810-1829), tens-of-thousands of pounds of *‘iliahi* (sandalwood) were cut from the forests above Waiākea and Keauhou, Ka‘ū (cf. Kamakau 1961, and Ellis 1963).

Describing the collection of *‘iliahi* in 1823, from the uplands of the Waiākea region, Ellis wrote:

In Hilo, the party was under the care of the chief Ma‘alo (written Maaro), Ellis and companions offer the following narratives, describing the land there about and activities of the people, among which included hundreds of residents being required to go to the mountains above, and gather sandalwood for their chiefs:

...we overtook Maaro, the chief of Waiakea, and three or four hundred people, returning with sandal wood, which they had been cutting in the mountains. Each man carried two or three pieces, from four to six feet long, and about three inches in diameter. [Ellis 1963:214] The bark and sap had been chipped off with small adzes, and the wood appeared lighter in colour than what is usually sold at Oahu, probably from its having been but recently cut down.... Although a plant of slow growth, it is found in abundance in all the mountainous parts of the Sandwich Islands, and is cut in great quantities by the natives, as it constitutes their primary article of exportation.

It is brought down to the beach in pieces from a foot to eighteen inches in diameter, and six or eight feet long, to small sticks not more than an inch thick and a foot and a half long. It is sold by weight, and the merchants, who exchange for it articles of European or Chinese manufacture, take it to the Canton market, where it is bought by the Chinese for the purpose of preparing incense to burn in their idol temples. ...Dense fogs and heavy rains are more frequent at Waiakea, and over the whole division of Hiro, than in any other part of the island... [Ellis 1963:215].

By the 1830s, the forest had been stripped of sandalwood and many other plants of the forest were impacted by the clearings made for collection and transportation of the *‘iliahi*. Another reason that large sections of the lower forests were cleared, was to develop lands on which western-introduced food crops could be cultivated and harvested for sale to visiting ships.

In this part of the discussion, it is appropriate to note that the European boar was significantly larger, and thus stronger, than the Polynesian introduced *pua‘a*, or pig (Beaglehole 1967:579). Our review of more than 60,000 native Hawaiian land documents dating from 1846 to 1910 revealed many references to *pua‘a* (pigs), but nearly every reference was in the context of them being near-home and as being cared for (raised), not hunted. In the same review of the native Hawaiian land

documents and a large collection of writings from native authors (e.g., D. Malo, 1951; J.P. Ii, 1959, S.M. Kamakau 1961, 1964 & 1976), every reference to traditional collection or “hunting” (a word seldom used in the historical records), was in the context of native birds—those used either for food or from which feathers were collected for royal ornaments and symbolic dress.

After ca. 1815, we find that when native Hawaiians went hunting in the uplands—as described in testimonies and historical texts of the time—they were hunting bullocks, goats and other introduced grazers, and this was generally done on the demand of their landlords, and later for the growing ranches being established in the islands. The first full-scale efforts of western-style hunting in the Humu’ula-Waiākea and Keauhou (Ka’ū) region does not appear in reference until around 1840 (cf. Kamakau, 1961; Government Communications in this study). Those early outings were focused on collection of hides and tallow; and controlling wild herds of animals that were a threat to travelers, agricultural fields, residences, and forest resources.

Immergence of Hawaiian Forestry Programs

So significant was the threat of these animals to the Hawaiian landscape, that on September 19, 1876, King David Kalākaua signed into law, an Act for the Protection and Preservation of Woods and Forests. By this Act, the Minister of the Interior was authorized to set apart and protect from “damage by trespass of animals or otherwise, such woods and forest lands, the property of government...best suited for the protection of water resources...” (Hawaii Laws Chapter XXX:39). The Minister of the Interior was authorized to appoint a superintendent of woods and forests:

...who shall, under the direction of said Minister, enforce such rules and regulations as may be established to protect and preserve such reserved woods and forest lands from trespass. Said superintendent shall have charge of the construction of fences and barriers required to protect the said woods and forest lands, and shall be responsible for their being kept in good condition... (ibid.).

The above Act was further defined by an Act of the Legislature of the Hawaiian Kingdom, approved by Queen Lili’uokalani on January 4, 1893, which established the Bureau of Agriculture and Forestry. Among the Bureau’s goals was the “preservation of forests.” On June 14, 1900 (then organized under the newly formed Territorial Government), the members and functions of the Bureau were absorbed by the Board of Commissioners of Agriculture and Forestry (Hawaii State Archives – Com 2, Box 11). The Board then set about the task of establishing forest reserves on all the islands; among the first being development of the Hilo Forest Reserve, which was needed to “protect the headwaters of the streams, which play so important a part in the success of the various plantations” (Wm. Hall 1904:277). On August 9, 1904, the Commissioners approved the recommendation that “all government and other lands in the district of Hilo, Island of Hawaii, lying above a line approximately 1750 feet above the sea, be set apart as a forestry reservation” (Hall 1904:282). The lands extended from Laupāhoehoe to Pi’ihonua, adjoining the land of Waiākea.

In 1905, the Board set in motion plans to set aside and protect portions of the ‘Ōla’a and Waiākea forest lands, the result being establishment of a forest band around the northeastern portion of the island of Hawai’i.

Regarding the forestry movement in the islands, C.S. Judd, Superintendent of Forestry, wrote the following account of forests and forestry in the Hawaiian Islands to Governor Farrington (October 10, 1924). Eighty years later, his words still present readers with an important frame work for the on-going efforts in protection of Hawai’i’s native forests:

Forestry is practiced in the Territory of Hawaii primarily, not for timber production, but for the conservation of water. Probably in no other section of the world is the relation between a satisfactory forest cover on the mountains and the supply of water for domestic and agricultural uses better or more ably demonstrated...

The chief product, and, the most valuable, coming from the main forested and mountainous regions of the Territory, comprising about one-fourth of the total land area of the eight islands (4,099,860 acres) is water. Because of the comparatively limited terrain, short and steep water sheds, heavy rainfall in certain regions and the great need for irrigating the dry but fertile, sun-warmed lowlands, the value of this liquid product of the forest, on which domestic needs and prosperity of the community depend, is most highly appreciated and every effort is being made to conserve and maintain its sources in the forests.

Character of the Native Forest.

The forest of comparatively small trees found growing naturally on the mountain slopes is admirably suited to prevent erosion and to convert surface runoff into underground drainage, the desideratum in water conservation. The happy combination of small trees, brushes, ferns, vines and other forms of ground cover keep the soil porous and allow the water to percolate more easily into the underground channels. The foliage of the trees breaks the force of the rain and prevents the impacting of the soil by rain drops. A considerable portion of the precipitation is let down to the ground slowly by this three-storied cover of trees, bushes, and floor plants and in this manner the rain, falling on a well-forested area, is held back and instead of rushing down to the sea rapidly in the form of destructive floods, is fed gradually to the springs and streams and to the underground artesian basins where it is held for use over a much longer interval.

Protection of the Forest.

Forest practice in the Territory of Hawaii, therefore, resolves itself into what is known as "forest protection" and the main efforts of the foresters are exerted in maintaining and build up the native forests on the mountains so that they will function to the highest degree in conserving the rainfall.

The native forest, however, is peculiarly constituted in that it is readily susceptible to damage. The shallow-rooted trees depend for proper moisture and soil conditions on the undergrowth of bushes and ferns and when the latter, the first to be attacked by stock, are injured or removed, the tree roots dry out, the trees are weakened and begin to decline, and an opening is made in the forest for the invasion of destructive insects and fungi and of the more vigorously-growing foreign grasses and other plants which choke out native growth and prevent tree reproduction. It is always dangerous for this reason to make any opening in the native forest and the only safe way to preserve it and keep it healthy and vigorous is to maintain it inviolable from all attacks and keep the ground well shaded and dark.

Damage to the Forest.

The chief damage to the native forest is done by cattle and other grazing stock which first attack the toothsome ferns and other plants which give the shallow-rooted trees the protection which is necessary to their existence.

The fencing of exposed forest boundaries to keep out stock and the extermination of wild stock where it exists in the forest constitutes an important item in forest work in the Territory...

Forest Reserves.

Forest lands devoted to the purpose of water conservation have been officially recognized under the law and set apart as forest reserves by proclamation of the Governor. In this manner during the past two decades 50 of such forest reserves have been set aside on the five largest islands of the group. These embrace a total area of 840,984 acres of which 579,905 acres or 68 per cent is land belonging to the Territory... (Hawaii State Archives – Com 2, Box 15)

Dedication of the ‘Ōla‘a and Waiākea Forest Reserves

As noted above by 1904, the Territory set in motion plans to protect Hawaiian forests by designating select tracts of land as forest reserves. While the primary perceived value of the forest reserves was economic—forests that produced water for agriculture, or forests from which wood and other natural resources could be harvested and sold—large tracts of land, upon which important Hawaiian ecosystems existed were set aside. Among these tracts were lands of the Hilo and Puna Districts, portions of which now make up the Pu‘u Maka‘ala NAR.

By 1905, the reports of the Board of Commissioners of Agriculture and Forestry begin describing the forests of ‘Ōla‘a, and in the following years, through the 1920s, we see the development of a system of forest reserves through ‘Ōla‘a, Waiākea, and Keauhou (the adjoining land in Ka‘ū). The following narratives and notes of survey describe the nature of the reserve lands, their resources, and the thoughts behind protection and management of these unique systems. The records focus on the founding history of the reserves, and come from the collections of the Division of Forestry and Wildlife, Survey Division, and Hawaii State Archives. The records are given by land and reserve area, and date of record.

The ‘Ōla‘a Forest Lands

The following documents focus on the development of the various facets of the ‘Ōla‘a Forest Reserve, and early descriptions of the resources therein.

***Honolulu, T.H., April 7, 1905.
OLAA REMNANT, PUNA, HAWAII.***

Committee on Forestry,
Board of Commissioners of Agriculture and Forestry.
Honolulu, T.H.

Gentlemen:—On March 22 you referred to me a letter from Mr. J.W. Pratt, Commissioner of Public Lands, under the date of February 10, requesting the suggestions of the Board in regard to certain lands on the Island of Hawaii.

Three of the four tracts mentioned are in Hamakua. These I expect to visit during my next trip to Hawaii, after which I shall be ready to report upon them.

The other land called for I have the honor to report upon herewith. It is “that tract of land constituting the remnant of Olaa, below the surveyed part of Olaa New Tract, and between Keaau and Waiakea, forming a long narrow triangle and marked on the map of Hawaii as “Government Tract.” [see *Figure 2*] The lower point of the tract comes practically to the Volcano Road, not far above the seven mile post. The upper end of the Remnant adjoins Lots 229 to 232 of the Olaa New Tract, at an elevation of about 1,600 feet.

While I have not made a personal examination of this tract I am familiar with the general character of the section from visits made to the adjoining lands.

This knowledge, with additional information concerning the tract obtained from Government officials and other trustworthy sources, is the basis on which I make the following report and recommendations.

The greater part, if not the whole, of the Olaa Remnant is covered by old *a-a* lava, known as the Kukulu Flow. It is this flow which the Volcano Road crosses between the four and eight mile marks.

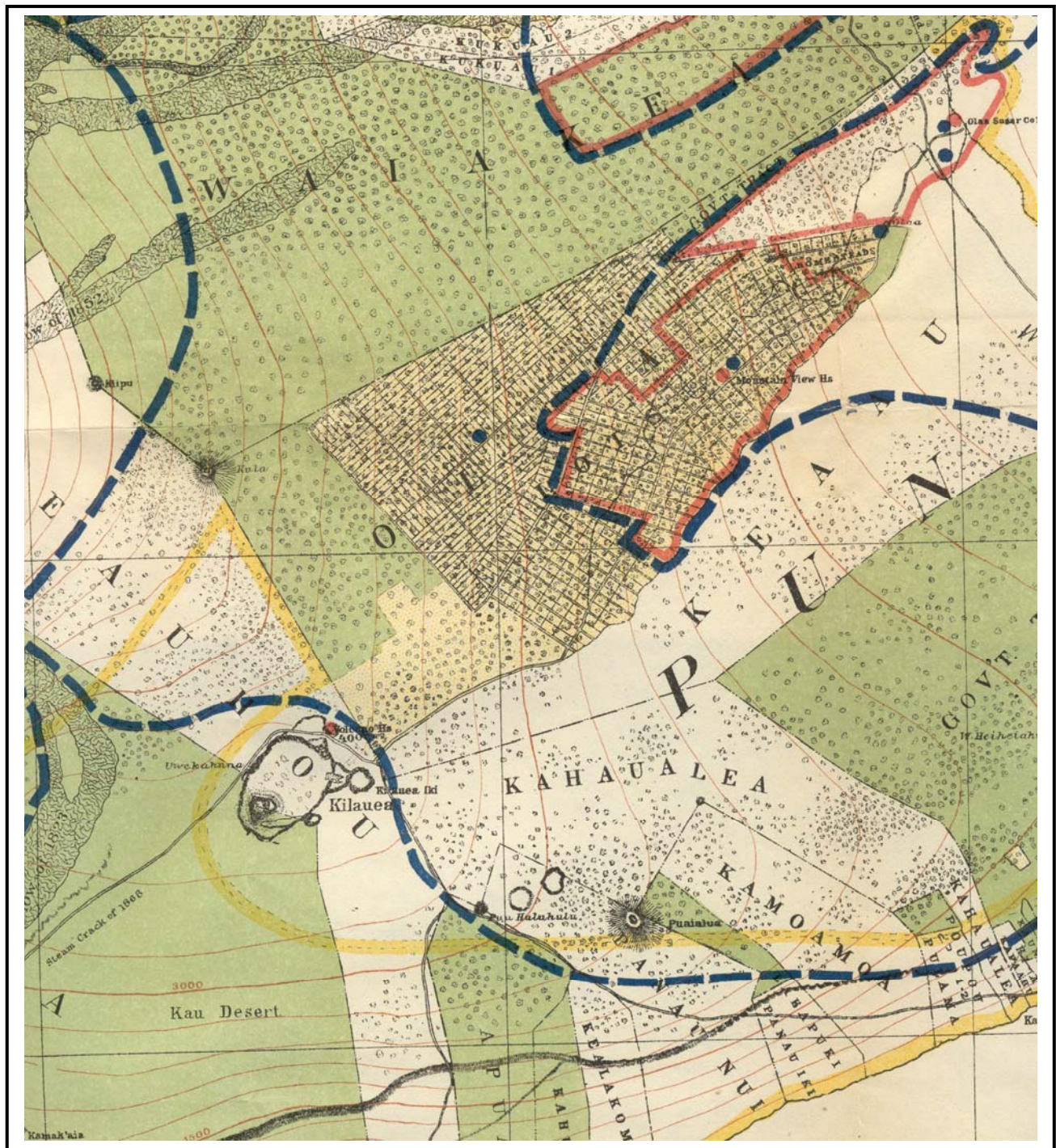


Figure 2. Detail of the 'Ōla'a-Waiākea Forest Lands (Hawaii Territorial Survey, 1901)

The Kukulu Flow consists of large rocks, covered in part by good soil, but the surface is too rough to admit of plowing or cultivation. The upper part of the Remnant is shown on the map of the Olaa Lots, compiled by Mr. E.D. Baldwin in 1899.

Covering the entire Olaa Remnant is a dense forest of the same character as that on the remainder of the Olaa Tract. *Ohia Lehua* is the predominant tree with a heavy undergrowth of [page 132] tree and other ferns, climbing vines and the tangle of tropical vegetation that goes to make up the native Hawaiian forest.

Were it is possible to develop the Olaa Remnant for agricultural purposes there would be no objection to clearing and opening up the land for settlement. But as the land is too rough to be cultivated, about the only profitable use to which this tract could now be put would be the cutting and marketing of the *Ohia* trees for timber, ties or fuel. Whatever value the Olaa Remnant at present possesses is largely because of the forest thereon, and unless there is a decided change in the economic conditions its greatest value in the future will be that it can produce timber trees.

Provided an assured market for *Ohia* wood existed, there would be no impropriety in logging the Olaa Remnant, provided always that the work were done in such a way that the Government would receive a fair return from the wood cut and that the forest were left in good producing condition.

But if a revenue is to be derived from the sale of forest products from Government land, the Government itself and not some individual should receive the chief benefit. To this end, when Government forest land is to be lumbered a special form of contract should be entered into, containing such directions and regulations as to how the work shall be done as may be deemed necessary.

In the case of the Olaa Remnant it is difficult to say for what the land could be profitably used at this time unless the idea is to cut wood.

I, therefore, recommend that the Board of Commissioners of Agriculture and Forestry advise the Commissioner of Public Lands not to lease the Olaa Remnant or to let it pass out of the control of the Government, until the forest on the tract can be put on the market at a fair profit or until the local economic conditions are such that the land can be used to better advantage for purposes other than that of producing timber trees.

Very respectfully yours,

RALPH S. HOSMER,
Superintendent of Forestry.
[Hawaiian Forester and Agriculturalist, 1905:133]

Eight years later, in 1913, based on a report by Territorial Forester, R.S. Hosmer, the Board set aside additional lands in the 'Ōla'a Tract, "The Upper 'Ōla'a Forest Reserve," described below:

Honolulu, June 18, 1913.

Gentlemen:—I have the honor to submit as follows, the recommendation that the remainder of the *mauka* portion of the government land of Olaa, to the north and west of the various subdivisions of homestead lots in the district of Puna, island and county of Hawaii, be set apart as a forest reserve [see *Figure 2*]. This land all belongs to the government. It is not now under lease. The area is 92.80 acres.

Object.

The reasons for the reservation of the Olaa forest remainder are largely the same that prompted me a short time since to recommend the reservation of the adjoining forest land of Waiakea, *mauka* (see report, dated June 6, 1913). Indeed, these two tracts, forming a continuous forest, are really to be considered together. They are only reported on separately because, for purposes of description, it was found desirable to treat them as two units rather than one.

No running water comes from the Upper Olaa forest. Its reservation as a forest reserve is justified, rather, because of the fact that the question may some time arise of exploiting its timber. It is none to soon to make provision against that time. One essential reason for setting the land apart now is that it may be brought under the care and control of the Territory's forest department. [page 304]

Like Waiakea, the upper portion of Olaa bears a heavy stand of forest. *Ohia-lehua* is the predominating tree, but with it in mixture are many other species. On its western edge the Upper Olaa forest joins the Bishop Estate land of Keauhou, on which is a heavy stand of the tallest and largest *koa* in the Territory. A section of Keauhou some seven miles long by one mile in width has for 10 or 12 years been held by that estate as a private forest reserve.

The heavy *koa* forest does not extend much, if any, on to Olaa, but near the Keauhou boundary, on the government land, is a fine stand of large tree-ferns (*Cibotium*) of perhaps as large size as any to be found in the Territory. These give at least a botanical interest to this region.

Some five years ago *ohia-lehua* railroad ties were, for a time, cut on the McKenzie lots, one of the homestead subdivisions of upper Olaa. Other than this, except as certain areas of forest have been cleared on other adjoining homestead lands and sold as firewood, there has been no commercial development of the upper Olaa forest.

Description.

The official description of the proposed Upper Olaa forest reserve, prepared by the Government Survey Office as C.S.F. No. 2476, accompanies this report.

Recommendation.

For the reasons given above I do now recommend that the Board approve the setting apart of this tract as the Upper Olaa forest reserve, and that the governor be called upon to hold the hearing and thereafter to issue the proclamation incident thereto.

Very respectfully,

RALPH S. HOSMER
Superintendent of Forestry.
[Hawaiian Forester and Agriculturalist, 1913:305]

1913

***Proclamation of Forest Reserves In the Districts of Hilo and Puna,
Island and County of Hawaii, Territory of Hawaii.***

UNDER and by virtue of the authority vested in me by the provisions of Chapter 28 of the Revised Laws of Hawaii, as amended by Act 65 of the Session Laws of 1905, and by Act 4 of the Session Laws of 1907, and of every other power me hereunto enabling, I, Ernest A. Mott-Smith, Acting Governor of Hawaii, with the approval of a majority of the Board of Commissioners of Agriculture and Forestry, having held the hearing of

which notice has been duly given as in said Acts provided, do hereby, subject to the existing leases, Set Apart as forest reserves, to be called respectively the Upper Waiakea Forest Reserve and the Upper Olaa Forest Reserve, those certain pieces of government land in the Districts of Hilo and Puna, Island and County of Hawaii, Territory of Hawaii, which may be described roughly as being the block of native forest on the lower slopes of Mauna Loa lying above the agricultural land back of Hilo and to the north and west on the various Olaa homestead subdivisions, and containing, respectively, areas of 51,800 acres and 9280 acres, more or less, more particularly described by and on a map made by the Government Survey Department of the Territory of Hawaii, which said map is now on file in the said Survey Department marked Government Survey Reg. Map No. 1808, and "Upper Waiakea" and "Upper Olaa Forest Reserves," and descriptions accompanying the same, numbered respectively C.S.F. Nos. 2430 and 2476, which said descriptions, now on file in the said Survey Department, are as follows...:

Upper Olaa Forest Reserve.

***Portion of the Government Land of, Olaa, District of Puna,
Island of Hawaii.
C.S.F. No.2476.***

Beginning at the Government Survey Trig. Station "Kulani" (marked by a copper bolt in a concrete post) at the intersection of the lands of Olaa, Keauhou, and Waiakea, as shown on Government Survey Reg. Map No. 1808, and running by true azimuths:

1. 243° 20' 12,694.0 feet along the land of Waiakea;
2. 318° 32' 30" 26,210.0 feet along the Southwest side of Cross Road No. 8 to a point on the Northwest boundary of Lot IV of the Otto Rose Settlement Association Lots;
3. 59° 31' 4492.0 feet along Lots IV and V of the Otto Rose Settlement Association Lots; 4. 149° 31' 3000.0 feet along Lot V of the 27 ½ Mile Tract;
5. 59° 31' 5858.0 feet along Lots V and VI of the 27 ½ Mile Tract;
6. 329° 31' 6000.0 feet along Lots VI and VII of the 27 ½ Mile Tract ;
7. 59° 31' 2950.0 feet along Lots VII, VI and V of the Kilauea Settlement Association Lots and across Wright Road;
8. 329° 31' 1000.0 feet along the Southwest side of Wright Road to the North corner. of Lot IV of the Kilauea Settlement Association Lots;
9. 59° 31' 4356.0 feet along Lots IV, III, II and I of the Kilauea Settlement Association Lots;
10. 149° 31' 30,575.0 feet along the land of Keauhou to the point of beginning.
Area, 9,280 acres.

In Witness Whereof, I have hereunto set my hand and caused the Great Seal of (the Territory of Hawaii to be affixed. (Seal)

DONE at the Capitol in Honolulu, this 13th day of October, A. D. 1913.

E. A. MOTT-SMITH,
Acting Governor of Hawaii.
[Hawaiian Forester and Agriculturalist, 1913:333]